The Research Experience of Social Studies Pre-service Teachers: A Qualitative Study

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Abstract

Improving teachers' reflective thinking skills about their instructional applications in their classrooms and their suggestions to solve the problems they face during teaching have become more important since the 80s. Reflective thinking is not only important for the professional development of teachers but it also plays a significant role in the institutional development of schools, eventually in the development of the society. Teachers' taking part in their teachings as researchers depends on their ability to adopt a researcher role and their experience in research. The participants of the present study were a group of third-grade pre-service teachers who were attending the Social Studies Teacher Education Program in the Education Faculty of Anadolu University. The study was conducted in order to understand the pre-service teachers' perceptions of their research experience in the scope of the course titled Research Method in Social Sciences. The data were collected in June, 2006 by using semi-structured interviews held with a total of 24 volunteering pre-service teachers. All the participants, 8 males and 16 females, were selected by using criterion sampling method. Content analysis was used to analyze the data. Findings showed that most pre-service teachers believed that teachers should conduct research for the purpose of solving the problems they might encounter in the learning-teaching process and for the purpose of professional development. Another finding was that the pre-service teachers considered the research process as a different experience, although they described the process as "difficult." Most pre-service teachers also stated that they learned the research processes and understood research articles and theses. They pointed out that they were more willing to conduct a research after their experiences. In this process, some pre-service teachers experienced various problems in areas such as the description of the research problems, data collection, time management, data analysis, and group work. The pre-service teachers suggested that the course of Research Method in Social Sciences should take place in all teacher education programs in Turkey, the course should be offered with more course credits, and it should include field-experience. Final suggestion was that pre-service teachers should be guided effectively in the entire research process.

Key Words

Social Studies, Pre-service Teachers, Researcher-Teacher, Reflective Thinking Skills, Teacher Education.

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Teachers are considered as professionals who are known to be trained as reflective pragmatists, who are able to relate instructional applications to research, and who sometimes inform other teachers through the publications of their own studies regarding their own teaching (Ben-Peretz, 1994; Eliot, 1993, cited in, Koutselini, 2008; Kynaslahti et al., 2006; Darling-Hammond ve McLaughlin, 1995, cited in, Levin ve Rock, 2003; Rock, & Levin, 2002; Rosiek, & Atkinson, 2005; Zeichner, & Klehr, 1999). In the profession of teaching, research on teachers is seen as a necessity for a teacher to become better in his job (Stenhouse, 1984, cited in, Ekiz, 2006a; Whitford, Schlechty, & Shelor, 1987, cited in, Clift, Veal, Johnson, & Holland, 1990), and this new role of the teacher is described as *"researcher-teacher"* (Ben-Peretz, 1994; Ponte, Ax, Beijaard, & Wubbels, 2004; Zeichner, & Klehr, 1999). The notion of "researcher teacher" is first proposed by Lewin in the 40s and it came back at the top of the popularity during the 70s by means of the curriculum development works of Lawrance Stenhouse (Brydon-Miller, Greenwood, & Maguire, 2003; Cochran-Smith, & Lyttle, 1990; Ekiz, 2006a). Consequently, the notion of researcher-teacher has started to be regarded as a part of the school system throughout the last decade (Hopkins, 2002). Additionally, teachers are considered as expert reflective practitioners who associate the research and teaching approaches and publish studies related to their teaching approaches in order to enlighten other teachers on the practical teaching approaches (Kynaslahti et al., 2006; Rosiek, & Atkinson, 2005). According to Churcher (2007), it became inevitable for teachers to take part in research projects related to their professional development in addition to planning lessons, evaluation, and communication with parents. Several factors played an important role in the development of the idea of researcher-teacher besides the constructivist approach (Ekiz, 2006a, Rock, & Levin, 2002). These factors can be summarized as supporting the teacher's instructional activity and helping the theoretical information transform into application at the desired level (Smith, & Sela, 2005), maintaining social change and making the school and the society more democratic (Christenson et al., 2002). Through the literature, it has been pointed out that teacher research is defined as a systematic process, which begins with a desire to conduct a research in order to solve a

problem or scrutinize an issue in detail; a voluntarily process that needs collaboration with others throughout the learning and teaching processes within an ethical perspective (Rogers, 2004).

Teachers could conduct research or participate in on-going studies in order to improve teaching and learning, to follow new developments in teaching, and to evaluate their own teaching (Campbell, McNamara, & Gilroy, 2004). The studies in the field of education generally focused on figuring out where and how teachers have employed the knowledge that was gained during their training processes; the problems that teachers have encountered and the ways they have solved those problems (Cochran-Smith, & Lyttle, 1993, cited in, Gitlin, Barlow, Burbank, Kauchak, & Stevens, 1999). It is quite common to see in the related literature of the last 20 years that there are a number of studies conducted by teachers or studies involving teachers (Berger, Boles, & Troen, 2005; Blumenreich, & Falk, 2006; Dresdner, & Worley, 2006; Everton, Galton, & Pell, 2002; Kosnik, 2000; Kosnik, & Beck, 2000; Ponte, 2002; Reis-Jorge, 2005, 2007). Studies on researcher-teacher have proved to be much beneficial for education systems. Studies on teachers and their professional development pointed out that teachers' critical thinking on their own practices in terms of their professional development is more effective than the seminars or workshops that are organized by the experts (Hitchcock, & Hughes, 1995; Nowlan, 2001). Teachers who actively participate in the research processes are more operative in their professional developments (Smith, & Sela, 2005) and feel more satisfied in their professions (Valli, 2000). The understanding of *research-teacher* is considered as useful in several ways such as professional development of teachers, teachers' reflective thinking about their own practices (Johnson, 1993; Liston, & Zeichner, 1990; Nowlan, 2001; Ponte et al., 2004); promoting a research-based school culture, strengthening the relationship between teachers in the school (Gu, & Wang, 2006; Johnson, 1993); coping with the gap between researchers and practitioners and between theory and application (Eliot, 1991, cited in, Ekiz, 2006a); the revision of the current programs through the evaluations of the educational theories (Johnson, 1993); and having teachers themselves do the educational changes (Ekiz, 2006a).

The related literature indicates that teachers have some obstacles in the process of conducting research. Those obstacles can be summarized as teachers' insufficient background on research, lack of time for conducting research (Hopkins, 2002; Smith, & Sela, 2005; Shkedi, 1998; Yalaza-Atay, 2003; Yoon, Park, & Hong, 1999); unsatisfactory support from the educational institutions and restrictions by the school administrations (Çepni, & Küçük, 2003; Ekiz, 2006b; Sarı, 2006; Yalaza-Atay, 2003). The idea of researcher-teacher has brought up another issue; the importance of research methodology courses in teacher education programs. A number of scholars in education emphasized that reflective teacher education programs should include research methodology education in order for pre-service teachers to become researcher-teachers as well as to become critical-thinkers in the future (Beisser, 2000; Çepni, Küçük, & Gökdere, 2002; Johnson, 1993; Liston, & Zeichner, 1990; Peker, 2006; Price, 2001; Shi, 2006; Tom, 1985; Valli, 2000). By participating actively in the process of research, pre-service teachers improve their skills in questioning, critical thinking, reflection, problem solving (Rock, & Levin, 2002), and developing strategies regarding their own teaching (Price, 2001). Moreover, such programs help pre-service teachers gain experience in research, learn the difficulties of conducting a research, learn about benefits and limitations of being researcher-teacher, prepare themselves better for the profession and role of teaching, understand the balance between theory and practice and become aware of the issues that may need to be changed regarding the teacher-student relationships, and the application of the program (Kosnik, & Beck, 2000). Therefore, many studies involving pre-service teachers have been conducted over the last 20 years (e.g., Beisser, 2000; Beisser, & Connor, 2001; Chant, Heafner, & Bennet, 2004; Christenson et al., 2002; Gitlin et al., 1999; Price, 2001; Rock, & Levin, 2002; Russell, 2000; Smith, & Sela, 2005). These studies focused on the attitudes and perceptions of pre-service teachers on research, their perceptions of research courses offered in teacher education programs, and experiences of pre-service teachers who conducted research or participated in the research process. The course of *Research Methods in Social Sciences* has been offered in the Social Studies Teacher Education Program in Turkey since 1998. The course of *Research Methods* also took pla-

ce in other teacher education programs (i.e., Early Childhood, Elementary and Math Education) in the academic year of 2005-2006. However, research on pre-service teachers' competency in conducting a research is very limited in Turkey. In Büyüköztürk's (1999) study, the teachers stated that although they considered the research skills as an important factor in their professional development, they did not have enough background knowledge on research methodology. In another study, Saban (2007) attempted to define graduate students' attitudes related to the qualitative research issues, in which the participants were asked to conduct a small-scale qualitative research. The findings of Saban's (2007) study revealed that through conducting research, the graduate students were able to grasp the qualitative research process better and they have developed positive attitudes towards qualitative research methods. The present study aimed to understand the experiences of pre-service teachers in the process of conducting a research. The study also intended to contribute to the professional development of pre-service teachers and improve teacher education programs.

Pre-Service Teachers' Research Practices

The course of *Research Methods in Social Sciences* is designed to enable pre-service teachers practice their knowledge about research process by conducting a small-scale research (both qualitative and quantitative) during the time of the course. It is a two-hour a week theoretical course offered during a semester, which is 14 weeks in total. This course is only being offered in the third year of the Social Studies Teacher Education Program. The main purpose of this course is to offer students adequate theoretical background of research as well as allowing them to practice the information they receive during the class in the field. For instance, first students learn about how to propose a research problem, design a research, collect and analyze the data, and present the data effectively. After successfully completing this part of the course, they are being asked to conduct a small-scale research (either qualitative or quantitative) based on what they learned from the first part of the class. During the course of *Research Methods in Social Sciences* students were divided into total of 10 groups each consisted of three to four students. The groups were formed voluntarily. The instructor of

the course guides students as mush as possible out of the course ti-me. The pre-service teachers kept a reflective journal as another re-quirement of the course as well as read research articles to prepare themselves for the research process. Class discussions about the readings took place every week during the course. Therefore, stu-dents improved their theoretical knowledge about how to conduct a research.

Method

The study group included a total of 24 junior pre-service teachers who were taking the course of *Research Methods in Social Sciences* in the scope of the Social Studies Teacher Education Program at the Education Faculty of Anadolu University in the spring 2005-2006. Sixteen females and 8 males were participated in the study. The participants conducted both small scale quantitative and qualitati-ve research on different topics. Criterion sampling method (Yıldı-rım, & Şimşek, 2005) was used to select the pre-service teachers who would be willing to participate in the study. The basic criteria for selection was that at least one student from each research group would participate in the study. The data were collected by using se-mi-structured individual interviews with the pre-service teachers who participated in the study. The interviews were held at the end of the academic year after *Research Methods in Social Sciences* cour-se had been completed. The interview questions were prepared ba-sed on the research questions and the previous studies. Prior to the interviews, one individual interview was conducted with one teac-her candidate and interview questions were examined by field ex-perts in order to increase trustworthiness of the study. During the interviews, the pre-service teachers were asked about what kind of a relationship exists between teaching as a profession and research, what they thought about their research experience in the course of *Research Methods in Social Sciences*, what they gained as a result of their research experience, what kind of problems they encountered in this process, and what kind of solutions they would suggest for these problems. Content analysis method was used to analyze the data (Miles, & Huberman, 1994). The analyses were done by two different researchers in three consecutive steps. First, the interview audio-records were transcribed and the written transcripts were re-

ad by the researchers. Therefore, the researchers were able to identify the possible mismatches between the audio-records and the written documents and revise the documents. Second, the researchers independently prepared a descriptive index. They compared their thoughts in the index and reached an agreement on the points they had differing thoughts about. Last, code files were formed and the related codes were transformed into the code files. In addition, themes and sub-themes were formed and the codes related to the themes were developed by the researchers. The findings of the research were presented under these themes and sub-themes. The reliability of the study was calculated with the use of Agreement / Agreement + Disagreement X 100 suggested by Miles & Huberman (1994). As a result of this calculation, the reliability of the study was found 87% (Gay, 1987).

Results

The findings of this study are important in terms of teacher education, research methodology, and policies. Most participants stated that after their experiences with research process, they understood the relationship between teaching and research. Some participants pointed out that learning about research will allow them improve themselves as teachers and also identify the problems they might face in their classrooms in the future. They also emphasized on the necessity of their future students' need to understand what research is and how it can used in real life. Most pre-service teachers in the study explained that being actively engaged in the research process enabled them to understand the concept better. They also said that it was a "different" and "enjoyable" experience. Even though some participants described the whole experience as 'tiresome" and "difficult," they admitted that it helped them understand the research articles and theses better. They also explained that this experience allowed them to use library resources, search engines and the internet effectively. Furthermore, some participants stated that they had difficulties while collecting, coding, and analyzing the data. Lastly, the participants strongly suggested that the course credits should be increased and better guidance is needed for the students during the whole process.

Discussion

Research findings show that most pre-service teachers believe that teachers should know about research methods and how to conduct a research in order to learn about new developments and trends in their professions. Some participants state that actively conducting a research during a research course will allow them to produce solutions to possible problems they might face in their classrooms in the future and to teach their students how to conduct a research effectively. Some previous studies provided similar findings (Beisser, 2000; Chant, et al., 2004; Rock, & Levin, 2002). Findings of the study also suggest that pre-service teachers who take the course of research methods in the pre-service period and actively participate in the research process consider research as a professional need. The pre-service teachers in the study stated that they learned how to conduct research by actively engaging in the research process. This finding is consistent with the findings of other studies conducted by Beisser (2000), Rock and Levin (2002), Saban (2007) and Christenson et al. (2002). According to the results of the study, the pre-service teachers described the research process as tiresome, time-consuming, and difficult; however, they said that they enjoyed the whole experience. Similarly, Beisser (2000) and Chant, Heafner and Bennett (2004) reported that pre-service-teachers consider the research process as difficult yet enjoy doing research. Based on the findings, it can be said that pre-service teachers learn more effectively and take pleasure in doing research although they experience difficulty in the process. Previous research indicates that teachers and pre-service teachers do not understand research articles, thus can not benefit from reading research articles (Buck, 2003; Zeuli, 1994). The pre-service teachers participated in this study stated that they understood the research articles and theses better after being actively engaged in research process. The findings of the study also show that conducting research enabled pre-service teachers to acquire skills such as doing interpretations, being objective as much as possible, and building effective relationships with their peers. The findings show similarity with the findings of some other studies which state that pre-service teachers who actively participate in the research process improve their critical thinking and problem solving skills (Beisser, 2000; Price, 2001) and collaboration with

their peers (Chant, et al., 2004). Moreover, the current study revea-
led that pre-service teachers have positive attitudes towards partici-
pating and conducting a research. This finding is also consistent
with earlier studies in the literature (Gitlin et al., 1999; Valli, 2000).
The pre-service teachers reported that they learned more about the
topic they investigated, they felt closer to the profession of teac-
hing, their self-confidence in their profession increased; and they
felt encouraged and eager in further education. Similar to these fin-
dings of the study, Beisser (2000) and Price (2001) found that pre-
service teachers learned about the relationship between theory and
practice. Other researchers such as Smith and Sela (2005) reported
similar findings in their studies that pre-service teachers obtain in-
formation about their students and about the topic they examined.
These findings also indicate that pre-service teachers who partici-
pate in the research process learn more about their professions and
it helps them develop their professional self-confidence. The pre-
service teachers participated in this study experienced some diffi-
culties during conducting their research. Some of these difficulties
were the lack of access to the necessary sources, lack of experience
in data collection, lack of participation in group work, lack of know-
ledge in data analysis process (i.e., using SPSS effectively and co-
ding data), difficulty in describing the research problem, and time
limitations. The obstacles experienced by the pre-service teachers
in the research process were similar to those in literature. Time-re-
lated problems (Gitlin et al., 1999; Price, 2001; Smith & Sela, 2005)
and lack of collaboration in group work (Price, 2001; Smith & Sela,
2005) are among the most common problems reported in the rela-
ted literature. After completing their research, the pre-service teac-
hers suggested that the course hours and the credits of the course
titled *Research Methods in Social Sciences* ought to be increased, the
field experience should continue as it is, and the course should be
offered in other majors. In addition, one of the pre-service teachers
reported that he needed more guidance. It is also possible to see si-
milar suggestions in the related literature (Berger, Boles & Troen,
2005; Christenson et al., 2002; Kosnik & Beck 2000; Russell, 2000;
Smith & Sela, 2005). The pre-service teachers are in great need of
guidance in the process of conducting research. Providing pre-ser-
vice teachers with effective guidance in this process will be benefi-

cial in terms of their attitudes toward conducting research and of their achievement in the process. The present study also revealed that pre-service teachers learned about the difficulties by being engaged in the research process and gained experience for further research. These findings reveal that pre-service teachers' competency in conducting research is crucial for their professional development. Therefore, teacher education programs should include the course of research methodologies. Regarding the findings of the present study following suggestions can be offered; the course credit and class hours of Scientific Research Methods courses that take place in the pre-service teacher training programs can be increased in order to include practice dimensions to those courses. Additionally, faculties can accredit some neighboring schools (Professional Development Schools) where pre-service teachers could conduct small-scale studies in order to make the practice dimensions more beneficial. Furthermore, the instructors at the universities should support the pre-service teachers through supervising their research processes. For further studies, action research and empirical studies can be conducted in order to improve the pre-service teachers' research skills.

Kaynakça / References

Beisser, S. R. (2000, April). Poising questions… solving problems: Action research for pre-service teachers. *Paper presented at The Annual Meeting of the American Educational Research Association*, New Orleans, LA.

Beisser, S. R., & Connor, K. (2001, March). Action research for undergraduates: Solving problems in preservice teaching. *Paper presented at The Annual Meeting of the American Association of Colleges for Teacher Education*, Dallas, TX.

Ben-Peretz, M. (1994). The dissemination and use of research knowledge in teacher education programs: A nonevent? *Knowledge, Technology, and Policy*, 7, 108-117.

Berger, J. G., Boles, K. C., & Troen, V. (2005). Teacher research and school change: Paradoxes, problems, and possibilities. *Teaching and Teacher Education*, *21*, 93-105.

Blumenreich, M., & Falk, B. (2006). Trying on a new of shoes: Urban teacher-learners conduct research and construct knowledge in their own classrooms. *Teaching and Teacher Education*, *22*, 864-873.

Brydon-Miller, M., Greenwood, D., & Maguire, P. (2003). Why action research? *Action Research*, *1*, 9-28.

Buck, P. E. (2003). Authentic research experiences for Nevada high school teachers and students. *Journal of Geoscience Education*, *51*, 48-53.

Büyüköztürk, Ş. (1999). İlköğretim okulu öğretmenlerinin araştırma yeterlikleri *Eğitim Yönetimi Dergisi*, *5*, 257-269.

Campbell, A., McNamara, O., & Gilroy, P. (2004). *Practitioner research and professional development in education*. London: Paul Chapman Publishing.

Çepni, S. & Küçük, M. (2003). Eğitim araştırmalarının fen bilgisi öğretmenlerinin uygulamaları üzerine etkilerinin belirlenmesi: Bir örnek olay çalışması. *Eğitim Araştırmaları*, *4*, 75-84.

Çepni, S., Küçük, M., & Gökdere, M. (2002, Eylül). Hizmet öncesi öğretmen eğitimi programlarındaki araştırmalara yönelik derslerin incelenmesi. *VI. Ulusal Fen Bilimleri ve Matematik Eğitimi Kongresi'nde sunulan bildiri*. ODTÜ, Ankara.

Chant, R. H., Heafner, T. L., & Bennett, K. R. (2004). Connecting personal theorizing and action research in pereservice teacher development. *Teacher Education Quartely*, *31*, 25-42.

Christenson, M., Slutsky, R., Bendau, S., Covert, J., Dyer, J., Risko, G., & Johnston, M. (2002). The rocky road of teachers becoming action researchers. *Teaching and Teacher Education*, *18*, 259-272.

Churcher, K. (2007). From the bottom up: Researching in the classroom. *Education Canada*, *47*, 64-66.

Clift, R., Veal, M. L., Johnson, M., & Holland, P. (1990). Restructuring teacher education through collaborative action research. *Journal of Teacher Education*, *41*, 52-62.

Cochran-Smith, M., & Lyttle, S.L. (1990). Research teaching and teacher research: The issues thet divide. *Eduactional Researcher*, *19*, 2-11.

Dresdner, M., & Worley, E. (2006). Teacher research experiences, partnerships with scientists, and teacher networks sustaining factors from professional development. *Journal of Science Teacher Education*, *17*, 1-14.

Ekiz, D. (2006a). *Öğretmen eğitimi ve öğretimde yaklaşımlar* (birinci baskı). Ankara: Nobel Yayınevi.

Ekiz, D. (2006b). Sınıf öğretmenlerinin eğitim araştırmalarına karşı tutumları. *Kuram ve Uygulamada Eğitim Bilimleri, 6*, 373-402.

Everton, T., Galton, M., & Pell, T. (2002). Educational research and teacher. *Research Papers in Education, 17*, 373-401.

Gay, L. R. (1987). *Educational research competencies for analysis and application*. (3rd ed.). London: Merrill Publishing Company.

Gitlin, A., Barlow, L., Burbank, M. D., Kauchak, D., & Stevens, T. (1999). Preservice teachers' thinking on research: Implications for inquiry oriented teacher education. *Teaching and Teacher Education, 15*,753-770.

Gu, L., & Wang, J. (2006). School-based research and professional learning: An innovative model to promote teacher professional development in China. *Teaching Education, 17*, 59-73.

Hitchcock, G., & Hughes, D. (1995). *Research and the teacher: A qualitative introduction to school based research* (2nd ed.). London: Routledge

Hopkins, D. (2002). *A teacher's guide to classroom research*. (3rd ed.) New York: Open University Press.

Johnson, B. (1993). *Teacher-as-researcher*. Retrieved July 17, 2007 from, http://www.ericdigests.org/2993/researcher.htm.

Kosnik, C. (2000). Looking back: Six teachers reflect on the action research experience in their teacher education programs. *Action in Teacher Education, 22*, 133-142.

Kosnik, C., & Beck, C. (2000). The action research process as a means of helping student teacher understand and fulfill the complex role of the teacher. *Educational Action Research, 8*, 119-136.

Koutselini, M. (2008). Participatory teacher development at schools: Processes and issues. *Action Research, 6*, 29-48.

Kynaslahti, H., Kansanen, P., Jyrhama, R., Krokfors, L., Maaranen, K., & Toom, A. (2006). The multimode programme as a variation of research-based teacher education. *Teaching and Teacher Education, 22*, 246-526.

Levin, B. B., & Rock, P. C. (2003). The effects of collaborative action research on preservice and experienced teacher partners in professional development schools. *Journal of Teacher Education, 54*,135-149.

Liston, D. P., & Zeichner, K. M. (1990). Reflective teaching and action research in pre-service teacher education. *Journal of Education for Teaching, 16*, 235-255.

Miles, M. B., & Huberman, M. A. (1994). *An expanded sourcebook qualitative data analysis*. London: Sage Publication.

Nowlan, D. (2001). *Action research as teacher professional development*. Retrieved July 18, 2007 from, http://www.ucalgary.ca/UofC/faculties/EDUC/jdnowlan/arfinalpaper.html.

Peker, B. G. (2006). Toward a new paradigm: Practitioner research. *Eğitim ve Bilim, 31*, 19-24.

Ponte, P. (2002). How teacher become action researchers and how teacher educators become their facilitators. *Educational Action Research, 10*, 399-423.

Ponte, P., Ax, J., Beijaard, D., & Wubbels, T. (2004). Teachers' development of professional knowledge through action research and the facilitation of this by teachers educators. *Teaching and Teacher Education, 20,*571-588.

Price, J. N. (2001). Action research, pedagogy and change: The transformative potential of action research in pre-service teacher education. *Journal of Curriculum Studies, 33,* 43-74.

Reis-Jorge, J. M. (2005). Developing teachers' knowledge and skills as researchers: A conceptual framework. *Asia-Pacific Journal of Teacher Education, 33,* 303-319.

Reis-Jorge, J. M. (2007). Teachers' conceptions of teacher-research and self-perceptions as enquiring practitioners-a longitudinal case study. *Teaching and Teacher Education, 23,* 402-417.

Rock, T. C., & Levin, B. B. (2002). Collaborative action research projects: enhancing pre-service teacher development in professional development schools. *Teacher Education Quarterly, 29,* 7-21.

Rogers, C. (2004). Developing a definition of teacher research. In M. M. Mohr (Ed.), *Teacher research for better school* (pp. 23-28). California: Teacher College Press.

Rosiek, J., & Atkinson, B. (2005). Bridging the divides: The need for a pragmatic semiotic of teacher knowledge research. *Educational Theory, 55,* 421-442.

Russell, T. (2000, April). Introducing preservice teachers to teacher research. *Paper presented at the Annual Meeting of the American Educational Research.* New Orleans, LA.

Saban, A. (2007). Lisansüstü öğrencilerin nitel araştırma metodolojisine ilişkin algıları. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 17,* 469-485.

Sarı, M. (2006). Araştırmacı öğretmen: Öğretmenlerin bilimsel araştırmaya karşı görüşlerinin incelenmesi. *Kuram ve Uygulamada Eğitim Bilimleri, 6,* 847-887.

Shi, L. (2006). Students as researcher participants or as learners? *Journal of Academic Ethics, 4,* 205-220.

Shkedi, A. (1998). Teachers' attitudes towards research: A challenge for qualitative researchers. *International Journal of Qualitative Studies in Education, 11,* 559-577.

Smith, K., & Sela, O. (2005). Action research as a bridge between pre-service teacher education and in-service professional development for students and teacher educators. *European Journal of Teacher Education, 28,* 293-310.

Tom, A.R. (1985). Inquiring into inquiry-oriented teacher education. *Teaching and Teacher Education, 36,* 35-44.

Valli, L. (2000). Connecting teacher development and school improvement: Ironic consequences of a preservice action research course. *Teaching and Teacher Education, 16,* 715-730.

Yalaza-Atay, D. (2003). *Öğretmen eğitiminin değişen yüzü* (birinci baskı). Ankara: Nobel Yayınevi.

Yıldırım A. & Şimşek, H. (2005). *Sosyal bilimlerde nitel araştırma yöntemleri* (beşinci baskı). Ankara: Seçkin Yayıncılık.

Yoon, K., Park, Y., & Hong, S. Y. (1999, April). Elementary teachers' percepti-ons of action research in Korea. *Paper presented at the Annual Meeting of the Comparative and International Education Society.* Ontario, Canada.

Zeichner, K., & Klehr, M. (1999). *Teacher research as professional development for p-12 educators.* Washington, DC: National Partnership for Excellence and Accountability in Teaching. (ERIC Document Reproduction Service No. 448156).

Zeuli, J. S. (1994). How do teachers understand research when they read it? *Teaching and Teacher Education, 10*, 39-55.