Readiness for Action Research: Are Teacher Candidates Ready to Become an Agent of Action Research?

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ABSTRACT

An important virtue of having teacher candidates who are aware of action research and are ready to embrace reflective practice is the point that after graduation, they will enter the workforce as a teacher equipped with the knowledge of a methodology that will improve their teaching practice. Based on this view, the present study investigates the English as a Foreign Language (EFL) teacher candidates' knowledge of action research in terms of: a- the aspects in which action research differs from traditional research methods, b- how action research can assist in improving professional development, and c- how action research should be carried out in the classroom. The data collection for the present study consists of a questionnaire administered to a total of 40 teacher candidates and a follow-up interview. The first part of the questionnaire is formed of 20 items relating to research characteristics. The second part of the questionnaire consists of five scenarios relating to a form of inquiry. The teacher candidates were asked to write an evaluation of the scenarios based on an action research focus. Finally, follow-up interviews were conducted with the participants; they were asked to expand on the responses of the scenarios. The triangulated data analyses of the present study displayed that the candidate teachers' awareness of action research still necessitates further support during the EFL teacher training program.

Keywords: action research, professional development, self- reflection, teacher candidate

INTRODUCTION

Within the arena of teacher based research, according to Borg (2009, p. 359) "an interest in teacher research engagement is also evident in the literature on English language teaching (ELT), though in this field only a limited number of empirical studies of teachers' conceptions of research exist (in contrast to a much wider body of work which advises teachers on how to do research (e.g. Allwright & Bailey, 1991; Nunan, 1992; Freeman, 1998; Burns, 1999; Brown & Rodgers, 2002)". Due to this point, Borg (2009, p. 360) claims that in order to extend our empirical understandings of English language teachers' conceptions of research, in 2005 he initiated an international program of research which dwells on these issues in a range of contexts. In this international program of research Borg examines, the teachers' conceptions of research of more than 500 English language teachers coming from 13 different countries. With this study, Borg discovered that although the literature persists on the importance of teachers being research-engaged, in reality this "is a minority activity in ELT" (p. 377) and the possible reasons

underlying this may be that the teachers "lack both the knowledge and practical skills which must underpin good quality research (ibid.)." For example, according to Tutunis (2011, p.163), knowledge of learners and their characteristics is gained during the teaching practices and although teachers may know about their learners, they do not know how they can handle this knowledge and collect information in a scientific manner.

Along these lines, it has also been stated by Burns (2010, p.6) that "many teachers have been put off research and the theories about teaching they were taught in teacher training courses, because they find out that when they get into the classroom the theory does not match the reality." Other reasons underlying the factors which hinder the teacher from conducting research, specifically concerning Turkey, are explained by Atay (2006). According to Atay (2006), "it has been observed that neither pre- nor in-service teachers of English can do much research in Turkey. The main reason is that pre-service teachers generally cannot get permission from schools for research, and in-service teachers do not have sufficient time and training to conduct research" (p.1). As can be seen, the issues relating to limitations in teacher engaged research and Borg's (2009) emphasis that there is a need for awareness- rising work with teachers because teachers may "have inappropriate or unrealistic notions of the kind of inquiry teacher research involves (p. 377)" were the impetus for the present study. Thus, the present study attempts to investigate the English as a Foreign Language (EFL) teacher candidates, registered at a faculty of education in Turkey,   awareness of teacher-engaged research, notably that of action research in terms of: a- the aspects in which action research differs from traditional research methods, b- how action research can assist in improving professional development, and c- how action research should be carried out in the classroom.

BACKGROUND

What is Action Research?

Researchers such as Burns (2005) state that although action research (AR) can go back to as far as Aristotle, it is possible to trace the modern seeds of action research in educational contexts to the work of John Dewey. "The famous philosopher John Dewey (1933) outlined the scientific process of research consisting of: problem identification, developing a hypothesis (or educated guess), collecting and analyzing data, and drawing conclusions concerning the data and hypothesis (Tomal, 2003, p. 1)." While Dewey's proposal of this outline of research is still considered as a general framework, McNiff and Whitehead (2006, p. 36) claim that "action research has been around for some 70 years" and that this type of research began with the work of a social psychologist Lewin (1946) who investigated what happened when people were involved in decision-making about the running of their workplace. Although Lewin is seen as the father of action research, Burns (2005, p. 58) notes that Lewin was "influenced by the work of J. L. Moreno, in group dynamics and social movements in early 20th. century Germany (Altrichter & Gestettner, 1993), conceived of research leading to social action' (Lewin 1946, reproduced in Lewin, 1948, p. 203) and saw AR as a spiral of steps."

"The term 'action research' was first coined by the social psychologist Kurt Lewin (Elliot, 1991, p. 67)." Even today "Lewin's original ideas have remained influential, and, following his ideas, many researchers organize their work and reports as a cycle of steps: observe – reflect – act – evaluate – modify. This cycle can turn into another cycle (McNiff & Whitehead, 2006, p. 36)." Since the work of Lewin (1946) action research has further developed and expanded; it is not only possible to find revised versions of Lewin's model [for example, two decades ago Elliot (1993) elaborated Lewin's spiral of activities (see Figure 1, for a diagrammatic representation)] but also to see different definitions and versions of action research.

For example, a study conducted by Kemmis (1993) addresses three versions: As in the words of Kemmis (1993): "In past work, Shirley Grundy (1982) and I (see, for instance, Carr & Kemmis, 1986) have distinguished between (a) 'technical' action research, which is frequently like amateur research conducted under the eye of university researchers; (b) 'practical' action research, along the lines advocated by Donald Schon (1983) in the US, John Elliott (1978, 1991) in Britain; and (c) 'emancipatory' or 'critical' action research, which Wilf Carr and I advocate (as cited in Carr & Kemmis, 1986)."

In the search for a definition of action research, considering the versions sated above, it must be noted that the present study takes the stance of 'practical' action research along the lines of Elliot (1991). Elliot, claims that action research can be defined as "the study of a social situation with a view to improving the quality of action within it (1991, p. 69)" and that action research theories "are not validated independently and then applied to practice. They are validated through practice (ibid.)." Along these lines, the present study focusing on teacher research in education is mainly concerned on the improvement of the teachers' practice rather than the production of knowledge itself. The present study having adopted Elliot's (1991, pp.72-26) stance, adheres to the following descriptions relating to the activities involved in the action research cycle: 1-Identifying and clarifying the general idea, 2-Reconnaissance, a) Describing the facts of the situation, b) Explaining the facts of the situation, 3-Constructing the general plan, 4- Developing the next action steps, and 5- Implementing the next action step(s).

According to Borg's (2009, p. 358) study "teachers held conceptions of research aligned with conventional scientific notions of inquiry" and conceptions as such in part have a negative influence on the teachers attitudes towards being research engaged. Therefore, action research differs from other types of scientific research. First of all, it must be noted that the term "research" based on its nature is a generic term. Due to this nature, it is obviously difficult to draw distinct boundaries between the overlapping concepts relating to the differentiation of traditional research from action research. Nevertheless, despite this caveat, the differences between these types of research were adapted from the findings of McNiff et. al. (1996), Burns (2010), Mills (2003), and Elliot (1991), and presented in the format of a table (see Table 1). Although, Table 1 attempts to highlight and represent some overgeneralizations relating to traditional research and action research, it must be noted that it is possible for the characteristics listed in each column of the table to be shared by both or to fall in between the two types of research.

Table 1: *Characteristics of Traditional Research and Action Research*

Traditional Research	Action Research
Conducted by academic practitioners.	Conducted by teacher practitioners.
Necessarily outsider research.	Necessarily insider research.
The research is planned from the beginning.	The plan is open for changes as the research continues.
Objective stance (control of variables and experimental groups).	Subjective stance (exploration of different ways of teaching).
Investigation of pre-determined relationship (e.g. cause and effect).	No pre-determined relationship is investigated.
Concerns contribution to classroom application and literary research.	Concerns contribution to immediate practical and personal concern.

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Structured approach; controlled set of methods are adopted.	Flexible and open-ended approach; methods are apt to change upon need.
Search for theory of practice.	Search of theory for practice.

The Benefits of Teachers Researching Their Practice

Approximately two decades ago McNiff (1993) stated that there was "a very powerful movement a foot in the United Kingdom, instigated largely by the activities of practitioners who are engaged in action research" and that there was "a clear committed voice which demands a national forum for the recognition of the need for a research-base for professionalism, a strategy that encourages teachers critically to identify the problem areas of their own practice and to work systematically towards solving the problems (ibid). (p. 8)" There is a need for research-based professionalism because studies conducted in academic research although they may be significant for the teacher, they may not be applicable for immediate application. Whereas, research development conducted by teachers as part of their professional development, will focus on their own real problems encountered within the learning or teaching environment.

At this point, it must be noted that the goal of action research is not to re-create teachers as researchers but to support them in developing an inquiry stance and a willingness to consider research-based instructional practices (Postholm, 2009, as cited in Ross & Bruce, 2013, p. 540). When a teacher participates in research-based instructional practices, the consequences are that "teaching is more likely to change and improve our practices than is reading about what someone else has discovered of his teaching (Corey, 1953, p. 70)."

Action research studies have emphasized the necessity for teachers to engage in enquiry because in this manner teachers will have an impact on the social situation and can change the situation in which they are in. Among the benefits of action research, as explained by Altrichter et al. (1993), is the point that action research intends to support teachers in coping with the challenges and problems of practice, and that "experience with action research, so far, has shown that teachers are able to do this successfully and can achieve remarkable results when given opportunities and support (Altrichter et. al., 1993, p.4)."

From another perspective it can be observed that while action research enhances teachers' critical thinking, it also develops their reflectivity in the professionalism of teaching. As stated in Tutunıs (2011, p. 164), Leung believes that if practising teachers criticize the present handed down from the past and feel the need for professional development, they need to be engaged in reflexive examination of their own beliefs and action in order to take action to effect change where appropriate. This kind of reflective action is highly appreciated for professional development" and action research is an approach which emphasizes the teacher's "role as a reflective practitioner who is continually observant, thoughtful, and willing to examine personal actions in the light of the best possible practices (Pelton, 2010, p. 5)" supporting change in their learning and teaching contexts. In addition, advocates of action research for teachers stress the point that "action research is not about hypothesis testing and producing empirically generalisable results; however, it is consistent with the definition of the scholarship of teaching and learning defined as 'systematic reflection on teaching and learning made public' (Illinois State University, www.sotl.ilsta.edu)."

Why Do Language Teachers Need Action?

Throughout the years, in the arena of teaching, action research has also become increasingly popular in the field of language teaching. Burns (2010, p.1) asserts that "language teachers all around the world

want to be effective teachers who provide the best learning opportunities for their students" and that action research can be a very valuable way for language teachers to extend their teaching skills and gain more understanding of themselves as teachers, their classrooms and students. It is also noted by Farrell (1997), that "action research is conducted by practising language teachers because they themselves are valuable sources of knowledge regarding their own classroom situations and as a result change can be implemented more credibly because practising teachers will find the results more credible and valid for their needs. (p. 94)"

Similar to the findings of Farrel (1997), in order to prove the advantages of teacher based research, Atay (2006) conducted a study in which pre-service (4 th. year university students) and in-service teachers (teachers working in a university English preparatory school) successfully participated and benefitted from collaborative action research in an English as a foreign language setting in Turkey. The findings of Atay's study indicated that collaborated action research not only had a positive impact on professional development by broadening perceptions of research but also encouraged the participants to implement new instructional practices (Atay, 2006, p.10).

Studies conducted by prominent researchers (for e.g. Farrel, 1997; Wallace, 1998; Burns, 2010) have pointed out that a foreign language teacher can enhance his professionalism by conducting action research within many domains of the foreign language teaching process. According to Wallace (1998, p.19) "action research in language teaching can focus on: 1) classroom management, 2) appropriate materials, 3) particular teaching areas (e.g. reading skills), 4) student behaviour, achievement or motivation, and 5) personal management issues." In addition to the areas formerly stated, Burns (2010, p.24) notes that the possibilities for action research are endless and that it could include any of the following:

- Increasing learner autonomy

- Integrating language skills

- Focusing on language form

- Understanding student motivation

- Developing writing skills

- Promoting group work

- Making classrooms more communicative

- Trying out new materials

- Finding new ways to do assessment

- Integrating technology into class activities

- Helping students to develop self-study techniques.

If we are to expand this list even further, it can be added that the foreign language teacher can also conduct action research in the inquiry of; a) language curriculum and program development, b) exploration of age and language learning, and c) personality traits and language learning.

Considering the characteristics of action research in foreign language teaching, a comprehensive study carried out by Farrel (2007, p. 95), proposes that the literature on action research for language teachers suggests the following:

- It involves collecting information about classroom events (in the classroom), through observation or through collecting information in other ways, such as through interviews questionnaires or recordings of lessons.

- It involves careful and systematic collecting of that information.

- The research involves some kind of follow-up action.

- This action involves some change in practice, and monitoring the effects of such change.

- The results are owned by teachers, rather than the research community.

- The results of the research can be reported at a staff meeting or through a written report.

- It seeks to build up a knowledge base about teaching based on practitioner's knowledge, rather than expand the knowledge base developed by academics and theoreticians outside of the school context.

- To develop research skills useful for classroom inquiry.

- To bring about changes in classroom teaching and learning.

- To develop a deeper understanding of teaching and learning processes.

- To empower teachers by giving them the tools which they can use to further impact changes within the profession in which they work.

As can be seen from the few number of studies addressed above, in foreign language teaching the teachers' and teacher candidates' professional development accrues with experience in action research as they study their own practices. Consequently, it possible to state that through action research it is possible for teachers and teacher candidates, in Kemmis's terms (2010) to "explore new ways of doing things, new ways of thinking, and new ways of relating to one another and to the world in the interest of finding those new ways that are more likely to be for the good of each person and for the good of humankind. (p. 425)"

METHOD

Participants

A total of 40 voluntary participants took place in the present study. All of the participants are teacher candidates who are fourth/final year students in registered at Uludag University English Language Teaching Department in the 2012-2013 academic year. All of the teacher candidates under investigation had been acquainted with action research, notably in the 'Scientific Research Methods'course during the second semester of the second year and 'Methodology (Special Teaching Methods II)' course in the second semester of the third year of their teacher training education.

DATA COLLECTION AND ANALYSIS

Questionnaire

The questionnaire consists of 20 items. The first section has 10 items drawn from the themes emerging in the literature of research in general, and the second section has 10 items attempting to dwell on the participants' knowledge relating to characteristics specific of action research. The data analysis

(descriptive statistics) of the questionnaire was conducted by using the SPSS 17.0 program. In order to measure the internal consistency (reliability) of the questionnaire Cronbach's Alpha was used.

The Cronbach's Alpha of the questionnaire is as follows; Reliability Coefficients: N of Cases = 40, N of Items = 20, Alpha = 0.790. All of the items on the questionnaire required the participant to respond to a four point Likert scale ranging from; 1- strongly disagree, 2- disagree, 3- agree, and 4- strongly agree. Based on this scale, the percentages of item frequencies were calculated (See Table 2 below).

Table 2: *Percentages of Item Frequencies*

Section 1	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)
1- Doing research is a part of teaching.	0.0	27.5	62.5	10.0
2- Teacher reflection is a part of research.	0.0	0.0	60.0	40.0
3- Research is based on experimenting with the students.	0.0	20.0	80.0	0.0
4- A large number of people are studied in research.	0.0	10.0	45.0	45.0
5- Research is about applying methods in the classroom.	0.0	0.0	70.0	30.0
6- Research is about combining methods of data collection.	0.0	0.0	80.0	20.0
7- Teacher research enhances schools/curriculum improvement.	0.0	10.0	45.0	45.0
8- Research requires time commitment.	0.0	5.0	47.5	47.5
9- Findings of research can be applied in the classroom.	0.0	0.0	70.0	30.0
10- In research variables need to be controlled.	0.0	20.0	75.0	5.0
Section 2				
11- Action research results are made public.	0.0	0.0	87.5	12.5
12- Action research investigates issues of practical importance.	0.0	0.0	95.0	5.0
13- Action research has the characteristic of referring to the scope of action of a single teacher.	0.0	27.5	62.5	10.0
14- The action researcher is the person who is responsible for the learning of himself and others.	0.0	0.0	80.0	20.0
15- The research process of action research characterized by a spiral of cycles.	0.0	15.0	67.5	17.5
16- Action research is for teachers who can think for themselves and make their own decisions.	0.0	22.5	52.5	25.0

17- In action research teachers make autonomous judgments about their practice.	0.0	17.5	82.5	0.0
18- Action research is problem-focused.	0.0	20.0	75.0	5.0
19- Action research can analyse information through statistics.	0.0	25.0	65.0	10.0
20-Action research is about testing hypothesis to produce empirical results.	0.0	22.5	52.5	25.0

Written Follow-up and Interview Follow-up

Inspired by the study of Borg (2009) the second type of data collection is a written follow-up. Due to time constraints, there were only 15 teacher candidates who were willing to volunteer to respond to follow-up questions and to participate in an interview based on their responses. The written follow-up consists of five scenarios relating to a form of inquiry (see Appendix A). The scenarios required the participants to provide a written evaluation for each. First they were asked to write whether each scenario was based on action research or not. Then they were asked to evaluate the scenario which they evaluated to be action research in terms of: 1-Identifying and clarifying the general idea, 2-Reconnaissance (describing or explaining the facts of the situation), 3- Noting the general plan, and 4-Finding the next action step(s).

In order to form triangulation of data, follow-up interviews with the participants were conducted by the researcher. At this phase, the interviewees were asked to expand on the written responses of the scenarios. The structure of the interviews followed the structure and order of the written follow-ups. The aim here was to form a face to face interaction with the interviewees so that the researcher can probe further into their responses. The interviews were video recorded and fully transcribed for analysis.

Results and Discussion

The quantitative nature of the questionnaire was suitable for descriptive statistics. Therefore, in order to see the teacher candidates distributions of responses the percentages of item frequencies were calculated.

Questionnaire

As can be seen in Table 2, responses to item 1, display that more than a quarter (27.5 %) of the participants, especially in this current era of changing traditions are still not aware that intervening through research in the practice of teaching, is an approach denying the ignorance of socially committed teachers of the profession. Here, I am using socially committed in terms of improving and making changes in the teacher's practice which in other words is the teacher's interaction with the curriculum. This finding is similar to that of Carr and Kemmis (1986) whom even more than two decades ago, had said "Indeed, what little evidence there is suggests that most teachers regard research as an esoteric activity having little to do with their everyday practical concerns (p. 8)." As can be seen in the present study, today it is possible to see teacher-candidates sharing this view.

Despite those teachers whom regard research as an esoteric activity having little to do with everyday concerns, Sagor (2000) points out that research for teachers is an activity which has an   energizing

force. Sagor (2000, p.10) metaphorically explains "fortunately evidence has shown that teachers who elect to integrate the use of data into their work start exhibiting the compulsive behavior of fitness enthusiasts who regularly weigh themselves, check their heart rate, and graph data on their improving physical development. For both teachers and athletes, the continuous presence of compelling data that their hard work is paying off becomes, in itself, a vitally energizing force." Therefore, in order to discover this force, it is important for teachers and teacher candidates to explore themselves within the notion of teacher-as-researcher and   practice of action research. After all, "it is vital that new approaches to teaching are afforded the time and the resources to blossom (Casey, 2013, p. 160)."

In Table 2, the highly rated 'agrees' to items 3 (relating to experimenting), 4 (relating to the number studied), 5 (relating to application of methods), 10 (controlling of variables) and 20 (relating to hypothesis testing) display that the participants' "conceptions of research are aligned with more scientific notions of enquiry (Borg, 2009, p. 368)." Similar to this, "Freeman (1988, p.14) throws light on the difficulties experienced by new AR practitioners when he states, 'to some degree teachers are the victims of conventional ideas of science', in that they may believe that 'systematic [scientific /experimental] procedure…holds the key to being a researcher.' It is relevant, therefore, to clarify briefly how AR differs from basic and applied research (Burns, 2005, p. 60)."

All of the teacher candidates agreed to item 6 which states that research is about combining methods of data collection. Despite the point that the combination of methods may seem threatening to teachers who are new to the act of researching, the participants of the present study are aware of the usefulness of combining different methods of data collection. In action research 'triangulation' is important in data collection. According to Altrichter et. al. (1993, p. 115) "Triangulation is an important method for contrasting and comparing different accounts of the sane situation. Through identifying differences in perspective, contradictions and discrepancies can emerge which help in the interpretation of a situation and the development of practical theory. In addition, where the different perspectives agree with one another, the interpretation is considered more credible."

Regarding the classroom and curriculum, it is possible to see; from item 7 that nearly all (90 %) of the teacher candidates have reached an awareness that teacher research enhances schools/curriculum improvement, from items 9 and 14 that all of the teacher candidates have agreed to the point that findings of research can be applied in the classroom and that in this case the teacher who is the action researcher is the person who is responsible for the learning of himself and others. Bearing in mind the classroom applications of action research whether it be conducted individually or in collaboration, "it is through these research strategies and negotiated practices that teacher motivation and autonomy, student motivation, and language learning are improved and socially reconfigured in a way that is essentially democratic (Banegas et. al., 2013, p. 199)."

There is no doubt that conducting action research or even research of any type necessitates time and devotion. This point can be clearly observed in the 95% rate of teacher candidates agreeing to item 8. However, at this point the teacher candidates need to be aware that although participating in research necessitates time commitment and places more responsibility on the teachers, they must value its contribution to professional development rather than to forejudge it as an overwhelming and unwelcomed practice. In an action research based study conducted by Ado (2013, p.142), an early career teacher "noted that the stress of all her responsibilities at the school 'largely inhibited any genuine research or production.' Therefore in order to prepare teachers for action research and to overcome their bias, teacher educators' need to address research practice and research time management skills during the teacher candidates or teachers training period.

Although Borg (2009) had found that there was less certainty among the teachers' conceptions about the need for research results to be generalisable or for the results to be made public, considering item 11, the findings of the present study shows that all of the teacher candidates believe that the results of action research need to be made public.   Making teachers' knowledge public is the final stage of action research. Altrichter et. al. (1993, pp.173-176), state that it is important to make teachers' knowledge public because it: prevents teacher knowledge from being forgotten, increases the quality of reflection on practice, meets the requirements of professional accountability, brings influence to bear on educational policy by means of rational argument, reinforces professional self-confidence, improves the reputation of the profession, and finally it plays a more active role in teacher professional development and initial teacher education.

While the results of questionnaire item 12 reveals that 100 % of the participants agree that action research aims to investigate issues of practical importance, item 16 displays the point that 15% of the teacher candidates are still not aware of the point that action research necessitates an internalise stance because practical importance is an issue concerning the teacher who conducts action research in to order improve oneself both personally and professionally. According to McNiff and Whitehead (2006, p. 42) while many research approaches adopt an externalist stance where "a form of thinking sees things as separate from one another, action researchers working with a living theory approach use a form of thinking that sees things as in relation with one another. Here, we can understand that action research takes an internalise stance because underlying this is the point that "action research is rooted in the ideas of social and intellectual freedom that people can think for themselves and make their own life decisions, and will come together on an equal footing to negotiate their life plans (ibid, p. 48).

The findings of item 13 show that approximately a third (27.5%) of the participants believe that action research has the characteristic of referring to the scope of action of a single teacher. These teacher candidates lack the knowledge that for the sake of improvement in education, action research can be conducted in collaboration with colleagues, the principal, school managers, parents and other stakeholders. In their recent work, Smith et. al. (2013, p. 237)referring to teaching in schools in the United Kingdom state that "teachers are being trained primarily in schools according to current educational policies rather than being educated so much in universities to engage critically with evolving demands. The individual teacher juggles between deciding for herself and being told what to decide. She shares space with others negotiating common and alternative needs where collective arrangements entail personal restraint." Whereas, within contexts as such, teacher's implementing collaborative action research can bring their voices together and articulate their decisions as a whole. Afterall, "participating in collaborative action research helps eliminate the isolation that has long characterized teaching, as it gives asn impetus to professional dialogue and thus, creates a more professional culture in schools (Quang & Hang, 2008, p. 204)."

Although there are adaptations and variations of the original model of action research designed by Lewin (1948) as a spiral of steps, by looking at the responses to item 15, one can see that only a minority (15%) of the teacher candidates are unaware of the reiterative and self-reflective spiralling characteristic of action research.

From the responses to item 17, one can observe that 17.5% of the teacher candidates are still unaware or perhaps they are afraid that a teacher needs to make autonomous judgments about their practice. In fact, one of the reasons for getting teachers to be engaged in research is to enhance teacher autonomy. As explained by Burns (2005, p. 61), "the publication of Nunan's volume, *Understanding language classrooms* (1989b) represented a significant step in making classroom research accessible to many teachers. Acknowledging the teacher as an autonomously functioning individual rather than the servant

to someone else's curriculum (p. xii), it provided a rationale for conducting teacher research, a practical set of guidelines and tools, and a line of argumentation to which many teachers could easily relate."

Findings of item 18, display that a majority of the teacher candidates (80%) see action research as problem-focused. This is a contradictory point. "Wallace (1998) has stated, action research is problem-focused and arises from explicit dilemmas and issues within professional practice. Systematic approaches and techniques will help researchers make sense of their experiences and through this structured reflection they may find the answer (Giannakis, 2013, p. 22)." On the other hand, instead of employing the term problem-focused, Burns (2010, p. 2) prefers the term 'problematising' because she sees this term less negative since it "doesn't imply looking at your teaching as if it is ineffective and full of problems. Rather, it means taking an area you feel could be done better, subjecting it to questioning, and then developing new ideas and alternatives." Here, it can be stated that in action research the teacher does not always have to address problems instead the teacher can address an issue which he would like to further develop or change for the better in his personal teaching context.

As can be seen from the results of item 19 of the questionnaire, 75% of the teacher candidates agree that statistics can be used in action research. This finding shows that there is a misconception among 25% of the participants that statistics cannot be used. However, both qualitative and quantitative research techniques can be employed in action research. As noted by Burns (2010, p.118) "some people assume that AR is not about using numbers at all, but quantitative data can have a very important place in the way we discover things and present our findings. We can gain insights about the extents, measures, or 'weightings up' of the main issues that are important to our research findings." McNiff et.al maintain that "when you use qualitative research techniques you will be looking at small number of cases in less detail and will probably find statics useful aids (1996, p.15)." Burns (2010, p.121) states that descriptive statistics are an excellent way of reporting on a particular group of learners and that "descriptive statistics fit in well with the local and specific characteristics of AR. In addition, Ross and Bruce (2012, p.538) also note that "quantitative examination of the teacher outcomes of action research is feasible and desirable."

Written Follow-up and Interview Follow-up

The written and interview follow-ups due to their nature requires a qualitative analysis of the teacher comments on every scenario. However, due to constraints in space, only arising patterns and recurring responses which shed light on the teacher candidates' assessments of the scenarios in the follow-ups will be highlighted.

All of the teacher candidates did not perceive Scenario 1 as research. Therefore, in the follow-up data of interviews they were asked 'why?' A majority of the teacher candidates shared the views;

- 'the teacher has identified a problematic area and is exploring with different activities,'

- 'the teacher is only doing self-reflection on her teaching practice.'

Although Scenario 1 is not seen as research, "exploratory teaching shares many characteristics with AR and it also fits perfectly within the continuum of reflective teacher approaches suggested by Griffiths and Tann (Burns, 2010, p.19)." This continuum is formed of the following phases: 1- Rapid reflection, 2- Repair, 3- Review, 4- Research, and 5- Retheorising and research (ibid.). It is also stated by Burns (2010, p.17) that action research "is part of the general 'reflective teacher' movement, but it takes the possibilities for reflection-in-action and reflection-on-action further into the realms of research." According to the continuum of reflective teaching practices (Griffiths & Tann, 1992, as cited in Burns, 2010) while reflection-in-action occurs in class and is short termed, reflection-on-action occurs outside

of class and is long termed. On the continuum of reflection, Scenario 1 is in the review phase and is reflection-on-action because the after class the teacher has thought about how she could improve her practice of teaching.

Despite the point that Scenario 4 is not action research, the remaining scenarios 2, 3, 4 and 5 were all highly rated as action research. This point required further investigation by the researcher. Therefore this point was specifically dwelled on in the interviews. Focusing on the reasons why Scenario 4 is perceived as action research resulted in the emerging comments, for example;

- 'the question is- which method is more effective?,'

- 'the general idea is to improve grammar teaching,'

- 'there is a plan for action (one class is taught deductively and the other is taught inductively),'

- 'the teacher is experimenting to find the best method for teaching grammar,'

- 'there is data collection and analysis.'

As can be seen from the comments of the follow-up relating to Scenario 4, teacher candidates need to enhance their knowledge relating to scientific methods and action research. In this scenario, the teacher is concerned with testing a hypothesis. Whereas, in action research the aim is not to interpret a situation based on a hypothesis, instead the aim is to change a situation with or without a hypothesis. In addition, these teacher candidates have also confused the self-reflective spiralling cycles of planning in action research with the planning of an experiment.

Referring back to Table 2, it can be seen that these areas were problematic in the first place because teacher candidates feel that the key elements of research in general are that research is experimental (80% agree) and that research is about applying methods (100 %). Also, the point that approximately more than 70% of the teacher candidates misperceived action research to be hypothesis testing should not be ignored.

The follow-ups revealed that in the methodology of action research, the main areas where the researcher is expected to identify an initial idea and systematically act are the stages which most of the teacher candidates found struggling. Perhaps one of the main reasons for this could be the fact that they have never actually conducted research. All of the teacher candidates stated that they had only been provided few examples of action research during their pre-service training.

This study has highlighted the point that although the teacher candidates under investigation were acquainted with the theory of action research during their teacher education courses, their awareness of action research still necessitates further support and clarification of action research processes.

CONCLUSION

In teacher education programs, teacher candidates are exposed to an immense amount of pedagogical knowledge relating to how to teach- the main purpose of any teacher training program. The present study has revealed that the teacher candidates in addition to being slightly inadequately equipped about action research theoretically; they also never had the actual opportunity to practice such a research. If teacher candidates are not trained and are deprived the chance of practicing action research, they will not know how to handle knowledge scientifically while investigating their own practice.

As for the case in Turkey, it can be recommended that teacher candidates registered in a faculty of education should be provided the opportunity to conduct action research in collaboration with their

practicing school mentors and university supervisors (also recommended by Kuzu (2009) and Atay, (2006)). Through this opportunity, teacher candidates will have a real-life chance to conduct a real life scientific inquiry into finding a solution for the challenges that they have met in the classroom. Experience as such will not only develop the teacher candidates' effective usage of data and information emerging in the classroom, but also assist the teacher candidates' professional development in bridging the gap between his theory and his practice.

Based on the present study, another recommendation would be to integrate action research into the curriculum of English Language Teaching Programs. Kuzu (2009) suggested the integration of action research into the teacher training curriculum in line with the changes adopted by the Turkish Higher Education Council in 2006. In order for teacher candidates to have further opportunities to conduct action research projects, similar to Kuzu (2009), it can be suggested that elective courses such as 'Project Development and Management' could also be offered in the English Language Teaching Program at Uludag University.

In order to have influential and effective teachers it is a must to prepare teacher candidates whom when upon entering the schooling process are equipped with an awareness of the benefits of action research and readiness to take part in the action. In this pursuit of knowledge for professional reasons teachers will also take their position in lifelong learning.

To conclude, "Action research is a systematically-evolving, lived process of changing both the researcher and the situations in which he or she acts (Henry & Kemmis, 1985)." Therefore, when today's teacher candidates become professional teachers "what they are learning will have great impact on what happens in classrooms, schools, and districts in the future. The future directions of staff development programs, teacher preparation curricula, as well as school improvement initiatives, will be impacted by the things teachers learn through the critical inquiry and rigorous examination of their own practice and their school programs that action research requires (Beverly, 1993)." Teachers researching to improve their practice will also be changing the future for the best.

APPENDIX 1

Scenario 1

An EFL teacher, while conducting various speaking activities noticed the mispronunciations of her elementary school grade five students. She took diary notes of her observations and judgements relating to the phonemes which her students were having difficulty in pronunciation. In the next lesson she implemented various activities consisting of tongue twisters embedded with the problematic phonemes. She found that this activity helped some of her students in correcting their pronunciation.

Scenario 2

The head coordinator of the English department of an elementary school realized the students examination scores were low because the course book which they were using was far too challenging for the students. Therefore, gave a group of teachers the duty to examine a number of language course-books to be used in the following year. He was also present in the discussion meetings of course-book selection because his aim was to observe his colleagues' processes of decision making in course-book selection. Teachers were asked to fill in a questionnaire and were individually interviewed by the coordinator. The coordinator wrote a report and presented this report during a staff meeting to colleagues, including the school principal.

Scenario 3

A novice EFL teacher, noticed from the low scores gained, that her students were having problems on the tests of reading comprehension that she had designed for them. Therefore, during the reading course, she administered scanning quizzes each with different item formats. Based on her anecdotal records and the data analysis of the scores gained from the quizzes she found that: in scanning tests students scored higher on open ended questions rather than multiple-choice and matching items. After these discoveries, she changed her reading comprehension test format from closed-ended to open-ended tasks.

Scenario 4

A novice EFL teacher started to work in an elementary school. The teacher   had read various studies claiming that deductive teaching of grammar is preferable for elementary students because this method emphasizes rules and helps students establish a strong foundation in basic grammar. The teacher wanted to test which of the two methods for teaching grammar was more effective in her teacher centred classroom. Therefore, the teacher first conducted a pre-test in both classes. Then until the end of the semester she taught grammar inductively to one class and deductively to the other class. At the end, both of the groups were re-tested and the results were compared to the first test.

Scenario 5

A group of teachers were interested in changing their traditional assessment methods to alternative assessment methods. They decided to integrate self-assessment methods into their programs. However, in a short period they discovered that their students were not able to assess themselves effectively. In this situation, their overall aim was to develop their learners self assessment skills. In the following term, the teachers emphasized and focused on the self-assessment activities which were already present in the course books designed in accordance to the Common European Framework of References (CEFR). As a result, changes were made to the self-assessment checklists. The 'yes' and 'no' questions were replaced by referring to the CEFR grids which consist of 'I can....' descriptors.

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