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Social Studies Teachers Use of Action Research As a Scientific Research Method

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Abstract

In this study, the implementation of action research by social studies teachers in classrooms was investigated as scientific research. Twenty social studies teachers working in various cities in Turkey participated in the research. Teachers had experience working in rural, district, or central schools, ranging from 3 to 20 years of professional experience. Data were collected through interviews lasting between 30 minutes to 1 hour via Zoom due to the Coronavirus disease (COVID-19). MAXQDA 2020 qualitative data analysis software was used for content analysis in the data analysis. Teachers perceive scientific research as following scientific developments, reviewing the literature, and using it in social studies classes (writing projects and achieving lesson objectives). The coding indicates that teachers do not adequately develop their professional development areas in in-service and pre-service training and do not play the role of a research-oriented teacher in their classrooms. The research revealed that teachers do not use action research as a scientific research method. Teachers are recommended to systematically carry out measurement and evaluation processes such as reflection, peer assessment, and self-assessment, viewing action research as a scientific methodology.

Keywords: Action research, scientific thinking, social studies teachers, scientific research.

Sosyal Bilgiler Öğretmenlerinin Bilimsel Araştırma Yöntemi Olarak Eylem Araştırması Kullanımı

Öz

Bu çalışmada, bilimsel bir araştırma olan eylem araştırmasının sosyal bilgiler öğretmenleri tarafından sınıflarda nasıl uygulandığı araştırılmıştır. Araştırmaya Türkiye'nin çeşitli illerinde görev yapan 20 sosyal bilgiler öğretmeni katılmıştır. Öğretmenler kırsal, ilçe veya merkezi okullarda çalışmış, 3 ila 20 yıl arasında mesleki deneyime sahiptir. Veriler, Coronavirus (COVID-19) nedeniyle Zoom üzerinden 30 dakika ile 1 saat arasında süren görüşmelerle toplanmıştır. Verilerin analizinde MAXQDA 2020 nitel veri analiz programı kullanılarak içerik analizi yöntemi yapılmıştır. Öğretmenler bilimsel araştırmayı bilimsel gelişmeleri takip etmek, literatürü taramak ve sosyal bilgiler derslerinde kullanmak (proje yazma ve ders kazanımı) olarak görmektedir. Yapılan kodlamalar öğretmenlerin hizmet içi ve hizmet öncesi eğitimde mesleki gelişim alanlarını yeterince geliştirmediklerini ve sınıflarında araştırmacı öğretmen rolünü oynamadıklarını göstermektedir. Araştırma sonucunda öğretmenlerin eylem araştırmasını bilimsel araştırma yöntemi olarak kullanmadıkları ortaya çıkmıştır. Öğretmenlerin, eylem araştırmasını bilimsel bir metodoloji olarak görüp yansıtma, akran değerlendirmesi ve öz değerlendirme gibi ölçme-değerlendirme süreçlerini sistematik olarak yapmaları önerilmiştir.

Anahtar kelimeler: Eylem araştırması, bilimsel düşünme, sosyal bilgiler öğretmenleri, bilimsel araştırma.

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INTRODUCTION

Teaching is a profession that requires professionalism, with legally defined duties and responsibilities. This area of professional development is based on teachers' lifelong self-development. Professional development requires teachers to follow scientific developments and use them in their classes, find solutions to problems that occur in the classroom, and plan the education-teaching process.

These problems may include issues with class management, insufficient materials, or challenges involving parents. Teachers are familiar with their classes, allowing them to easily articulate problems and contemplate the potential outcomes of solutions. Teachers can seek assistance from their colleagues or supervisors, and these issues can be effectively addressed through the implementation of an action research method. According to Carr and Kemmis (1986), action research is a reflective research model applied by participants. In this application, participants assess and affirm reliability and rationality themselves. Mills (2003) emphasizes the importance of a systematic approach when teachers seek help from their colleagues. According to him, in an action research process, teachers collect information about how others instruct and assess how students learn from these instructional methods Making action research also can be defined as a method that helps teachers with professional development (Darwin and Barahona, 2019; Ertuğ, 2009). In this way, teachers gain experience in doing scientific research. Making research both related to school and individually will not distract teachers from their profession, on the contrary, it will prove that this profession can be practiced both as a learner and as a teacher with a lifelong learning.

Studies show that a teacher can also be a researcher in the classroom. These studies reveal that teachers can be both a researcher and a teacher during pre-service and in-service training, and even through postgraduate education. Critical collaborative approaches in the training process of teacher candidates enable them to reflect on their roles as practitioners, learners, and researchers (Papadopoulou, 2021). The methodology used is in the form of action research. This module, realized with academician-teacher candidate collaboration, is the intertwined fabric of action learning and action research (O'Siochru et al., 2021). Considering that teachers need professional development as well; this process also means that they equip themselves with current information. For this, they need a strong motivation and renewal (Eroğlu and Özbek, 2020). Action research contributes to teacher-researcher cooperation by helping teachers find practical solutions to the problems they face in practicing their profession, and helping them think scientifically (Saka, 2006; Stanulis and Jeffers, 1995). At the same time, studies revealed that it helps peer evaluation by strengthening the cooperation among teachers (Kondo, 2020; Mandouit, 2018; Tezcan-Unal, 2018). All these studies lead us to the 'teacher researcher' profile. The type of research in which teachers are recommended to make research on educational problems in school and classroom environments is referred to as the Teacher Researcher Model (TRM) (Ekiz and Yiğit, 2012). In this model, the teacher assumes a researcher role in the classroom, identifies the problem, proposes solutions, and easily implements suggestions. They can discuss implementation results with other teachers and experts. They convert their data into reports (Akhan and Demirezen, 2017). In this way, researchers aim to systematically monitor their own educational activities. Apart from classroom applications, TRM can also be used for school improvement, professional development, reflective learning, and teaching (Ekiz and Yiğit, 2012).

There are various research studies on the benefits of action research in Turkey Teachers employ this method in their careers. So, this method contributes to the development of self-efficacy and mindset (Eğinli and Dikilitaş, 2022). Additionally, teachers cultivate self-efficacy beliefs and reflective thinking (Doğan and Kırkgöz, 2022). Understanding the method leads to an increase in teachers' motivation (Zıngır-Gülten, 2017).

International research affirms the effectiveness of action research. For instance, concerning the development of classroom action research, teachers gain a better understanding of classroom problems (Semathong, 2023). Many researchers contribute to building action research courses in universities. They assert that the courses are beneficial for process learning (Idris, Eskender, Demoz, Yosief and Andemicael, 2023; Stroupe, 2023). Researchers who discuss various teaching methods claim that they can effectively teach through action research (Lo, 2017; Lo and Hew, 2021), assessment and evaluation (Barret, 2023; Rader, 2023).

Many researchers emphasize the importance of action research in teacher education for fostering reflective practice, improving teaching practices, and bridging theory and practice. They also underscore the need for teacher educators to embrace and facilitate action research experiences for pre-service teachers. (Ulvik and Riese, 2016; Yan, 2017; Zireva, 2017; Ginsberg, 2023). As seen in the studies, conducting scientific research for professional development will enable the teacher to conduct the class as a researcher. In this study, social studies teachers' use of action research as a research method has been investigated. The study has been carried out with social studies

teachers since it is an interdisciplinary course and one of its target acquisitions is to make students aware of scientific research methods (MoNE, 2018).

In the study, it was aimed to reveal teachers' use of action research as a scientific research method in general. As researcher-teacher, social studies teachers sometimes use scientific research steps in their lessons. However, there is no clear data on the level of this. In this study, it is aimed to question how social studies teachers use action research as a scientific research process. For this purpose, answers were sought to the following questions about social studies teachers.

1. How do they use scientific research methods in the classroom environment?
2. What do they think about improving themselves scientifically?
3. What do they think about adapting action research to the classroom setting?
4. What do they think about whether action research contributes to the learning-teaching process

METHOD

Research Design

The study was conducted using a qualitative research method. Qualitative research is the process of examining the meanings created by individuals to develop field-specific explanations or theories (Özden and Saban, 2017). The primary objective of this method is to comprehend people's experiences. In the context of this study, the focus was on understanding teachers' experiences with action research as a scientific method. Consequently, the study involved an examination of teachers' opinions about the method, accompanied by a series of questions. A perspective based on establishing theory through systematic research, which aims to investigate and understand social phenomena within their environment, is known as grounded theory (Yıldırım and Şimşek, 2016).

Data Collection

A semi-structured interview form was used as a data collection tool in this research. During the data collection process, the following questions were asked to the teachers:

1. What is teaching according to you?
2. Have you received any training related to your professional development?
3. How do you evaluate yourself in the teaching profession?
4. In your opinion, what factors depend on teachers' self-development in their profession?
5. How would you describe your school?
6. Do you think scientific research methods can be used in the teaching profession? How?
7. What do you do to get to know the students?
8. What do you do to control yourself during the lesson?
9. How do you ensure cooperation between teachers? / What kind of policy is developed at your school?
10. How do you cooperate with other teachers?

All of the questions were asked by the researcher to understand the teachers' perspectives on scientific thinking. However, in data analysis, a wide range of questions was not taken into account. For example, questions such as How would you describe your school?" "What do you do to get to know the students?" or "What do you do to control yourself during the lesson?" were not considered. These questions aimed to explore the teachers' perspectives on education or their school.

Due to the Covid-19 pandemic, the interviews were carried out on Zoom for 30 minutes/1-hour time periods. Since semi-structured interviews were conducted, the researcher differentiated his questions throughout the interview. In research, teachers sometimes had difficulties in describing exactly how to define scientific research. In addition, the place where the teachers work, their educational status, and whether they take part in the school administration has also changed the course of the interview.

The research was limited to 20 social studies teachers working in different provinces and districts in Turkey. The reason for choosing social studies teachers is that they are considered to do a lot of research and have achieved continuous self-development due to the nature of the social studies course (Barr, Barth and Shermis, 2013). According to Topçu (2017), the social studies course is essential for academic development. Additionally, it encompasses various aspects of knowledge relevant to daily life. Moreover, the social studies course integrates

multiple disciplines, including history, geography, and archaeology, among others. Therefore, teachers emphasize the importance of having knowledge across a wide range of topics (Hanaylı, Öztürk, Baysal, and Vural, 2020).

Table 1. Socio-Demographic Characteristics of the Respondents

Demographic Characteristics	Teachers	
	Total	%
Gender		
Male	11	55
Female	9	45
Age		
25-30	8	10
36-40	10	55
41 and above	2	35
Educational Qualifications		
Master's Degree	8	10
Doctorate	2	35
Undergraduate	10	55
Type of School		
Private School	3	15
Central School	8	40
Central District School	5	30
Village School	4	15

According to Table 1, there are a total of 20 social studies teachers, 11 males and 9 females, in the study group. The age range of teachers varies between 27-47 years and their professional seniority is between 3-20 years. This wide range has guided the researcher in revealing information about how teachers have improved themselves in their profession. 10 participants have received postgraduate education, and the rest did not take any initiative in this regard. 3 of the participants work in a private school, 8 in a central public school, 5 in a central district school, and 4 in a small village school.

It can be said that, with professional experience, the teachers have achieved an important difference in their willingness to improve themselves and use scientific research methods (Turhan and Yaraş, 2013; Aslanargun and Atmaca, 2017). These professional experiences also gave them an opportunity to explore different socio-economic structures in different types of schools. For this reason, maximum variation sampling was used as can be seen in the table, considering the differences in professional experiences of teachers. It was considered that this would have a positive effect on the validity of the research. In addition, snowball sampling was used to reach participants for the research. The interviews were finalized when the data obtained from the study groups became repetitive, considering that there was no need for more participants.

The participants were coded as P1, P2, P3, and so on, without making any distinctions regarding gender, educational status, professional seniority, etc.

Data Analysis

Content analysis was used in the research. Content analysis involves creating categories and counting certain elements in a text, such as a newspaper article, by considering the situations in which they relate to those categories. In qualitative research, researchers create a series of categories and examine the situations that fall into each of these categories while conducting content analysis (Silverman, 2018). In this study, the sentences related to scientific research and action research in the interview records were detected, categorized, and coded. The qualitative data analysis program MAXQDA 2020 was used in the study. The program was used for conducting data analysis and ensuring control (Santos et al., 2021). The analysis results were visualized with the Code Theory Model and the Hierarchical Code Model via the program (see Figure 1-2 and 3).

The cases of using scientific research and action research were analyzed separately so that codes, categories and sub-categories were obtained from two different themes. This was done because the research questions were related to two different themes.

Research Ethics

This research was approved by the Suleyman Demirel University Social and Human Sciences Ethics Committee with the decision number 108/33 dated 22.06.2021.

Validity/Reliability/Credibility

There are many methods to increase the accuracy of data in qualitative research. One of these methods is to accurately convey the research sample.

First of all, in order to increase credibility in the data collection tool, the literature related to the use of action research as a scientific research method in the teaching profession was reviewed and then a question pool was created. When the inter-coder consistency was calculated, it was found to be 75%. Miles and Huberman (1994) find a consensus of 70% sufficient. Some questions from the question pool were eliminated based on the recommendations of two experts who specialize in professional development. Their expertise guided the selection process to ensure the relevance and effectiveness of the remaining questions. In order to test the clarity of the questions, they were asked to a total of 8 teachers, 4 teachers from different branches (Classroom teacher, science, mathematics, music), and 4 teachers from social studies, and analyses were carried out. The themes and codes obtained as a result of analyses were re-evaluated, and actual interviews were carried out. Data collection and analyses took 5 months in total.

One way to increase credibility in qualitative research is to take an oppositional stance to the analyses (Patton, 2014). For this, different ways of doing scientific research were reviewed and a comparison was made with the answers given by the teachers. The situations that are contrary to the teacher-researcher profile targeted by the teachers were examined. Some of the teachers who participated in the research said that they did not know the researcher teacher profile and that there was no supportive, encouraging and informative application in their schools. In addition, they stated that the basic needs of the student profile in their school were not met, and they also assumed this task. The researcher decided that this did not fit with the researcher teacher profile. Thus, researcher-teacher profiles emerged more clearly.

FINDINGS

In this study, a connection was established between teachers' curiosity about scientific research, practices, and doing action research. Therefore, the data were divided into two main themes as scientific research methods and action research.

The Code Theory Model and the Hierarchical Code Model were used in the presentation of the data. These models were used to visualize all codes and categories with the MAXQDA 2020 qualitative analysis program. In addition, quotations regarding the codes and categories were included in the presentation of the findings.

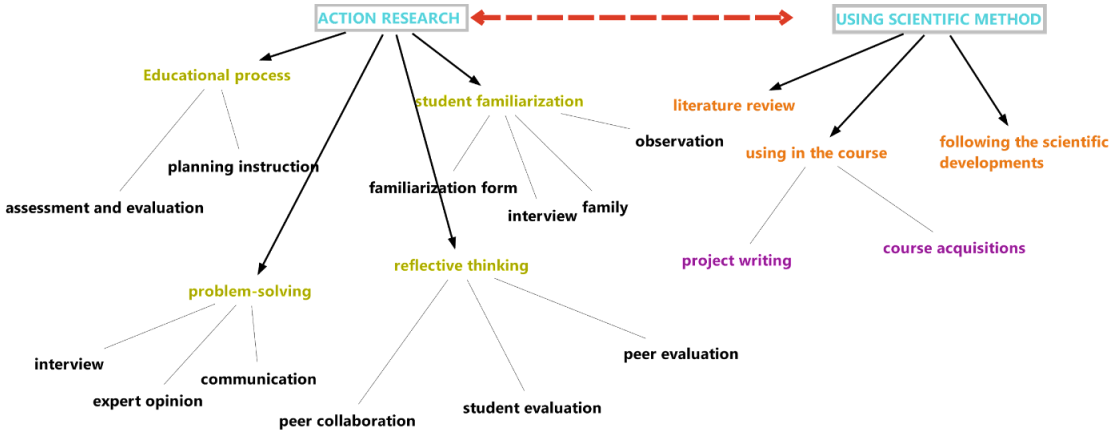

Figure 1. *The code theory model for the use of scientific research*

In this study, action research was evaluated as a scientific research method and an inquiry was made about how social studies teachers use action research in their classrooms. According to Figure 1, participants use action research in various ways as a scientific research method in their profession. We see that they consider scientific research as conducting a *literature review*, *using in the course*, and *following the scientific developments*. *Using the course* is divided into two groups as *project writing* and *course acquisitions*. The answers received during the interview were divided into 4 codes: *educational process*, *student familiarization*, *problem-solving*, *and reflective thinking*. If we look at the categories of these codes; there are 2 categories in the *educational process* code as

assessment and evaluation and *planning instruction*, and there are 3 categories in the *problem-solving* code as *expert opinion, communication*, and *interview*. There are 3 categories in the *reflective thinking* code as *peer collaboration, student evaluation,* and *peer evaluation*, and there are 4 categories in the *student familiarization* code as *familiarization form, interview, family, and observation*.

Results Related to Using Scientific Research Methods

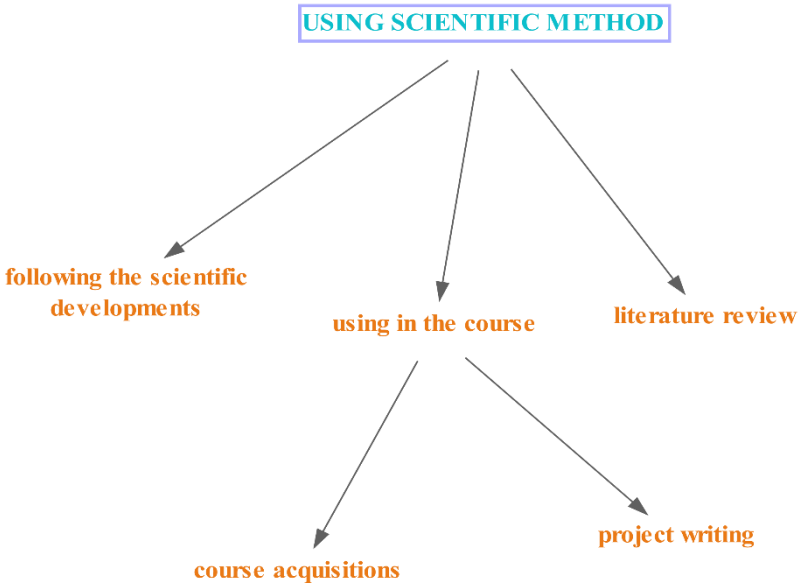

Figure 2. *The hierarchical code model for the use of scientific research*

The codes and categories created according to the analysis of the answers of the teachers regarding the reconciliation of scientific research methods with the teaching profession are given in Figure 2. According to this, when it comes to the use of scientific research in teaching, teachers have established a direct relationship with *following scientific developments, using in the course, and literature review*. They think that social studies, as an interdisciplinary course, are directly related to scientific research methods. For this reason, they stated that social studies teachers should follow scientific developments. These statements are categorized as *the following scientific developments* in the study:

> *You are already faced with an ever-changing world. It does not stop changing. It never will. To be able to provide guidance regarding these changes, you must constantly change, that is, you have to renew yourself (P11).*

Teachers have stated that it is necessary to keep up with the times for professional development:

> *Technology is changing so fast that a teacher must attend many seminars (P15).*

> *I mean, in this digital age, many characteristics of our students have also changed compared to the old system (P17).*

Teachers also criticized themselves and their colleagues regarding the subject of the following scientific developments:

> *... 18 years ago, when there was barely any projector in any school, the principal at the school where I worked covered up a projector and put it away, thinking that it's government property and he should protect it from damage, so I took it out and started to use it. After seeing the students get excited, I started doing different things to increase their attention (P16).*

During this period of study, classes were carried out with distance education due to COVID-19. Teachers stated that their awareness about following scientific developments increased in this process.

> *We have really outdone ourselves right now, as teachers preparing a virtual museum tour and conducting experiments in the same environment. Incredible talents have emerged among us, of course, by including children in this technology as well. They are even more enthusiastic. They have a better grasp of technology, they learn faster, go through it faster (P2).*

The teachers participating in the research stated that they sometimes follow the relevant publications in order to improve themselves. Statements of the participants were categorized as literature review in this study:

... For example, when I read a book, I take various notes. I do some research on it. Occasionally, I take a look at articles, theses studies, etc. I really like this magazine application, EBA magazines, I download them from there and take a look (P6).

The participants stated that scientific research methods are among the acquisitions of the social studies course and therefore they are open to using them. These statements were categorized as *using for acquisition* in the study:

We have an acquisition that states "the student can conduct research by using scientific research steps." Sometimes I explain the scientific method step by step (P1).

Now here is the thing, generally, we have a unit called science and technology in the 6th and 5th grades. 4th Unit. There we have a topic called applying scientific research steps in there (P4).

... Books, magazines, journals. Whatever they are, reach them. Maybe it's hard, but since there is information about the content of these books on the internet, I tell them that there should be at least two references. And they pay attention to this when we well them at the beginning (P7).

Participants stated that they used scientific research methods while writing scientific research projects for teachers. These statements were categorized as *project writing* in the study:

In any case, the subjects should be explained with the scientific research methods, for which we provide project guidance (P15).

They also stated that participants benefited from scientific research steps in project-based learning.

We give project-based homework, we want the students to do research about a subject, we want them to reach resources, we want them to reference these resources within academic integrity, we want them to organize the information they reach through these resources and make an effort (P11).

Results on the Use of Action Research

Figure 3. *Hierarchical code model of using action research*

According to Figure 3, the participants use action research in order to make evaluations about problem-solving, reflective thinking, student familiarization, and the education and training process in their classrooms.

Participants stated that they received help from their colleagues for an evaluation of their professional development or an evaluation of themselves. This help is categorized as peer evaluation in the study. The point to be considered in this category is that the teachers P2 and P11 working in private schools voluntarily ask for peer evaluation:

I have three colleagues in our teacher group. Among these colleagues, I asked one of them whom I considered close to making observations a few times. You know, how does it look from the outside, I mean, am I the way I think I am or not? (P11)

I ask people who will observe my lesson, you know, to pay attention to classroom management, reading, the tone of my voice, and to tell me if there is something that caught their attention that I might have missed (P2).

Some of the teachers who participated in the study organized this peer evaluation in a semi-systematic way:

We did something together, another teacher comes to my class. This teacher is my friend, so I know they will tell me the truth... It wasn't planned, we just wanted to try it. We wanted to understand ourselves better (P20).

For 10 weeks, we, three social studies teachers, observed each other's classes and made evaluations. Yes, it's very good. I really liked it too. I mean, we made the evaluations, and to be honest, I saw my shortcomings and strengths.(P8).

What draws attention from the evaluations related to this category is the negative thoughts of the teacher with the code p19 working in a private school about the evaluation of a colleague:

I wouldn't want someone to watch my class, I wouldn't feel comfortable. I don't know why, but... I mean, if someone's constantly watching, I would be too nervous (P19).

In addition to peer evaluation, the participants asked their students to make evaluations too. These statements were categorized as student evaluation in the study:

I asked what am I doing wrong, I said, give me feedback. One of them said, you talk too much and don't let us speak. It was during my first 5 years. After that, I started to try to make them speak (P10).

Actually, the best evaluation is the one we receive from the students and the love we receive from them. I mean, both. I look at it both emotionally and academically. At the end of the lesson, I get happy when they ask questions, answer them, and make evaluations (P15).

When they try to have a conversation with me when they see me outside of the classroom, when they tell about me and our class to their friends or parents, when I hear good things from students whom I don't even teach, it makes me feel like I do this profession as best as I can (P16).

Academically, evaluating their success helps me evaluate my own success (P17).

Teachers stated that they took steps towards cooperation with their colleagues. Statements towards this are categorized as *peer cooperation*.

During our weekly meetings, there are always common decisions, common ideas. Apart from that, we are always in contact with each other (P2).

There are 5 teachers in my teacher group. We can get information about in-service training from Mebbis. In important cases, the school administration provides information. In any situation, we meet each other, exchange ideas. All teachers help each other in our school. We write to our teacher message group on an important subject. We inform each other. We cooperate with the school administration and our fellow teachers (P13).

... We ask each other questions (P18).

There are some things we need to plan for, we have a WhatsApp group for that (P7).

Collaboration was not only between social studies teachers, but also with the help of teachers from other disciplines:

I ask the Science Teacher to give a research homework to the students to reinforce a subject I taught (P1).

We exchange books we have read that can be helpful about self-improvement with the music teacher or mathematics teacher (P8).

I may not be sufficient, I know that because I am not an expert. In that case, I get help from our English teacher or, I mean, I like study music, so I get help from the music teacher, I change the lyrics. Sometimes we collaborate with Turkish teachers for rhymes and things like that (P12).

Social studies teachers stated that they also used action research in student familiarization. Since this familiarization process takes place with *family, observation, familiarization form* and *interview*, the same codes are given. Teachers stated that home visits are very important in getting to know the student. These statements were categorized as *family* in the study*:*

Doing home visits is helpful for getting to know the students (P4).

I haven't seen anything as effective as home visits (P8).

The students have a number. Once a week, on Wednesdays, we do home visits (P10).

You get angry with the child. For example, they didn't do their homework or you check the answers, you said, you could not concentrate, but then you visit their home and see that they live with three or four siblings in a single-room apartment, for example, there was one who had a disabled sibling, that student did not learn anything. We see situations like these (P7).

Teachers stated that they observed them outside of the classroom in student familiarization. These statements were categorized as *observation* in the study:

I mean, teachers always know more, we always do the same thing, but you get to know them during the lesson. Are they shy or confident? Some of them do not want to talk at all. I get to know them during recess. Other than that, they come to me and we have conversations. In some way, we know their problems, more or less. The ones who have problems with their family are very aggressive, they tend to start fights (P14).

I organize different activities outside of school where I can see the students. At these activities, I have observed that students who are emotional or unresponsive in the classroom are very different outside, in real life. Because this is very different than the classroom environment, it's more exciting, we get to see different aspects of them. I mean, I try to organize as many of these activities as possible (P16).

... I try to observe their skills, for example, one of them may be very good at drawing. I am able to encourage them by saying "you draw very well" (P20).

The teachers said that they obtained information about the socio-economic status of the students through the student familiarization forms created by the guidance service. These statements were categorized as *familiarization form* in the study:

Let me say that we have student familiarization forms. We get them to fill these out, but how helpful are they really? At least we get some information about their families (P4).

Of course, for example, student familiarization forms and similar things are the things we do at the beginning of each school year, but I don't think that these are very effective. the most important thing is to get that information from the student (P9).

I use student familiarization tokens (P15).

Participating teachers said that they receive information regarding students directly from them by having conversations. These statements were categorized as *interview* in the study:

Other than that, we let them speak during the lesson and we try to meet with them one on one to get information about the students (P4).

The classroom is a place for getting to know each other. 40 minutes of a lesson is not teaching for 40 minutes. It's not possible anyway. we see them during recess or in the teachers' lounge (P18).

We have conversations especially in the schoolyard, have fun together (P19).

We already have a lot of conversations with the students, during recess and during lessons as well (P3).

When the participating teachers explained the problem-solving methods in their classrooms, these methods were categorized as *communication, expert opinion,* and *observation*. The subject of guidance service or consulting with the classroom teacher when there is a problem was categorized as *expert opinion* in this study.

Yes, we definitely exchange ideas with the classroom teacher. Then with the advisory teacher when there is a serious problem. No always serious problems, sometimes there are problems that we cannot fully understand, so we direct them to the advisory teacher (P10).

For example, the student has problems with all the classes or causes problems in all lessons. We discuss this with the classroom teacher, the classroom teacher talks to the advisory teacher. The advisory teacher directs them. Generally, when I speak to the advisory teacher, it turns out that there are problems with the family (P4).

We have meetings with the advisory teachers. When there is something we can't handle. For example, when I really try and realize that I cannot solve it... In such a case, I see the advisory teachers or school management (P7).

Teachers also criticized the fact that guidance services do not work very well and that they sometimes standardize students and mislead them:

We have the e-school system, you know. They are registered, but most guidance services are unaware of that. For example, right now, I have a student in 6 D, I can see whether that student's parents are alive or divorced, I can already see all this information on the system. But I see that advisory teachers do not, when I contact them (P1).

Teachers also talked about talking to the students in solving a problem. These statements were categorized as communication in the study:

Even talking to the student one on one is effective (P3).

I mean, sometimes you need to go deeper into the source of the problem in order to solve it (P12).

In this case, I listen to the student (P5).

Apart from classroom problems, teachers also used action research for assessment and evaluation and planning instruction. The teachers thought that an evaluation method could be used as a scientific research method to see whether the acquisitions of the course were achieved or not:

Especially, test-retest method can be used. Students can be tested, and their knowledge level can be measured before teaching. They can be tested again after teaching to see the change in their knowledge level (P13).

Scientific research methods We analyze behaviors that do not have criterion validity (P15).

In fact, I am asking the same questions in different ways in a single sheet, and my purpose here is, I wonder to which questions the students give more correct answers while reading (P17).

Statements about the use of action research in the teaching process are categorized as *planning instruction*:

... For that reason, our teachers can use scientific research methods both for planing instruction and for establishing positive communication with the students or measuring their own academic success, even for what I call social impact, to see the effects of the education on the students' lives after the education they received (P17).

For example, one of the academic works we do was about daily planning. We continued that for 16 weeks, and believe me, I think that I used the class period more efficiently within that daily plan during those 16 weeks (P8).

Participants perceived action research as essential for the teaching and learning process and considered it beneficial for familiarizing students with reflective thinking. However, despite its usefulness, they believed that action research lacked scientific and systematic rigor.

DISCUSSION & CONCLUSION

It is known that the research teacher should make a systematic and intentional inquiry. This systematic process is a kind of written record of data collection, recording information, documenting experiences inside and outside the classroom (Cochran-Smith and Lytle, 1993). When the literature is examined, it is seen that it is not unusual for teachers to also be researchers in the classroom, on the contrary, it is an acquisition that should be achieved in pre-service training or in-service training. In other words, action research can be used in teacher education. Studies have shown that teachers realize the benefits of action research. These benefits can be listed as learning scientific methods and steps (Akhan and Demirezen, 2017; Alan, 2016; Baldan and Güven, 2018; Ekiz and Yiğit, 2012) increasing cooperation among teachers (Akiba and Liang, 2016), helping to plan education and training (Çepni and Akdeniz, 1996), and improving professional skills (Eroğlu and Özbek, 2020; Guskey, 2002; Herbert and Rainford, 2014; Kırkgöz and Yaşar, 2020; Musanti and Pence, 2010; Saka, 2006). Action research organized by teachers enables them to become researcher teachers in a critical context. However, it is also vital to find strategies to consolidate action research. These strategies include teacher and student interaction and even support for each other. For example, a guideline was created for the use of Participatory Action Research (PAR) in a research teacher-student collaboration in a school in Mexico. The purpose of using this program is to bring about a change in the institutional and cultural structure of the school (Paredes-Chi and Castillo-Burguete, 2018).

There are various aspects of action research nationally and internationally. In Turkey, teachers frequently utilize this method, leading to the development of self-efficacy, mindset, and increased motivation. Noteworthy researchers, such as Eğinli, Dikilitaş (2022), Doğan, and Kırkgöz (2022), and Zıngır-Gülten (2017) have explored the positive impact of action research on educators. Additionally, international studies, including works by Semathong, et all (2023) and Stroupe (2023), Lo (2017) Lo and Hew (2021), Barret (2023), and Rader (2023),

emphasize the effectiveness of action research in understanding classroom problems, building university courses, and enhancing teaching methods, assessment, and evaluation. For instance, a study in Norway, explored action research in pre-service teacher education, highlighting challenges and positive outcomes. Time and space for reflection are crucial, and action research facilitates the development of practical and theoretical understanding (Ulvik and Riese, 2016) The other case showed that action research during pre-service teacher education enables the development of a critical inquiry stance, bridging theory and practice, and improving teaching practices through reflection and inquiry (Ginsberg, 2023). : In the context of pre-service language teacher education in China, action research is underutilized. A study involving collaborative research experiences with pre-service teachers demonstrates its potential but also highlights issues of sustainability (Yan, 2017). The part of action research is reflective practice. For example, Zireya (2017) declared that some teacher educators impede its development, lacking understanding of how action research can foster reflective practice.

Action research in education may be related to the professional experience of teachers, as well as evaluating the profile of the researcher teacher by conducting professional research or writing an article for a peer-reviewed journal (Burns and Westmacott, 2018). Examples on the subject seem to have emerged within the needs. However, the decisive effect is that the researcher clearly determines what he wants.

Recent research confirms our thinking about action research. Considering the studies outside of Turkey, it is emphasized that academician-teacher cooperation not only contributes to the professional experience of teachers but also increases the possibility of sharing these experiences with academicians (Wahlgren and Aarkrog, 2021). Moreover, it was revealed that the students, who are known as the best practitioners of the period, gained more knowledge with action research. Accordingly, students are considered self-learning independent practitioners. When they realize this learning in the form of cooperation with their peers, it will not be difficult to talk about permanent learning. It was thought that teachers and learners established a mutual teaching in a sense, and teaching learning came into question (Miller et al., 2021). The research see that collaborative and reflective or exploratory action researches are not an active teaching method that makes a difference to learning, but a necessity in which stakeholders teach by being influenced by each other (Barkhuizen, 2021; Burns and Westmacott, 2018; Hanks, 2021; Paredes-Chi and Castillo-Burguete, 2018). On the other hand, reflective practicum in teacher education tests whether teachers believe in peer teaching activities and that the balance between theory and practice can be achieved (Bannink and Dam, 2007; Baysal and Ocak, 2019; Messiou, 2019; Zeichner and Liston, 1987). Teachers that practice reflective thinking are the ones who constantly improve themselves professionally and adopt lifelong learning as a principle. In their study, Tezcan-Unal (2018) concluded that with the peer observation model, the knowledge level of teachers increased while doing action research. Therefore, it can be argued that teachers improve themselves with reflective thinking. The use of action research in professional development requires a balance between theory and practice. This balance shows that education faculties can provide support (Pultorak et al., 2006).

In action research conducted on the teaching practices of pre-service teachers, the effects of the group on teaching practices and experiences at school and on teaching practice were met positively. Pre-service teachers thought that action research had a positive effect on their teaching practice experience (Davis et al., 2018). As a requirement of professional development, academician-teacher cooperation is expected in action research. Education faculties should cooperate with schools both to provide education for teachers and to support in-service training (Smets et al., 2022; Tezcan-Unal, 2018). Creating a teacher-researcher profile that includes practice instead of ordinary seminars and conferences, and encouraging teachers in this regard requires a systematic and disciplined practice (Kuzu, 2009). Well, are the pieces of training offered to teachers for professional development at a sufficient level in Turkey? Studies on the subject show that the current situation is disadvantageous to teachers. Teachers stated that need analysis is not carried out in the content of the pieces of training offered for professional development, that the quality is insufficient and remains at the theoretical level, and that the methods and techniques used are not suitable for them (Sıcak and Parmaksız, 2016). They also stated that the pieces of training are very limited and from time to time, they are carried out by people who are not experts in their field or do not have an academic title (Arıbaş et al., 2012; Çelik et al., 2019; Seferoğlu, 2004). Professional development should be based on a collaborative process that generates mutual exchange, dialogue, and creativity (Eroğlu and Özbek, 2020; Kuzu, 2009; Musanti and Pence, 2010). In Turkey, pieces of training related to professional development are held in the form of seminars, face-to-face training, and conferences. This shows that teachers are correct in their opinions about in-service pieces of training. On the other hand, in-service training is based on practical applications that include reflective teaching and peer evaluation (Desimone et al., 2002). The lack of rational and measurable teacher professional competencies in Turkey does not allow teachers to improve themselves professionally (Tosuntaş, 2020). In other words, professional competencies are not clearly defined. For example,

among these competencies, the Ministry of National Education has included *self-evaluation and participation in pieces of training for personal and professional development*. These programs include identifying the areas in which teachers need improvement and supporting their strengths (MoNE, 2017). According to the announced by the Turkish Education Association (TEDMEM) TALİS (Teaching and Learning International Survey) 2018 report, the areas in which teachers in Turkey want professional development are mostly curriculum knowledge (85.9%) and student evaluation practices (65.7%) (TEDMEM, 2019). As can be seen, reflective practice with peer evaluations is not included in the areas in which teachers need improvement. The same report also presented data on the formal training of teachers in relation to improving themselves for professional development. According to this, the rate of teachers with postgraduate education in Turkey is 6.5%. Considering the Organization for Economic Development and Cooperation (OECD) average (45.5%), this rate seems to be quite low (TEDMEM, 2019). Many problems, such as the fact that postgraduate education is not compulsory, and that the relevant legal regulations have not been made, do not attract the teachers in Turkey to postgraduate education (Karaman and Bakırcı, 2010). In parallel to this, the fact that teachers see scientific research as useless and only as a field of the pursuit of academics (Saka, 2006) also shows the inadequacy of scientific research in teacher education.

Teaching has emerged as a professional profession in many countries, including continental Europe and the UK (Mayer and Mills, 2021) other than that, teacher education policies in Australia are taken seriously. The "Literacy and Numeracy Test for Initial Teacher Education" (LANTITE) program created is implemented as a reform movement aimed at improving teacher education (Barnes and Cross, 2021; Hilton et al., 2020). But this is not the case in Turkey (Korucuk, 2019). However, it is stated in the 2023 vision policies within the scope of the National Education program that postgraduate education will be made compulsory with the “teaching profession specialization program” (MoNE, 2018).

Implications

With this research, the contribution of social studies teachers as an intermediate discipline to the 21st-century information and technology society model has emerged. However, this contribution is not systematic. Instead, their work has been incidental, through professional experience or learning from colleagues. This situation indirectly shows that they do not use action research as a scientific research method for solving problems in the classroom or providing a planned education.

Action research was used as a scientific research method by the social studies teachers who participated in the research. However, this practice is not as systematic and purposeful as it should be according to scientific research steps. Instead, it stands out as an activity that was carried out randomly or in line with the requests of the school administration (for example, peer review).

In this study, however, there was no teacher who accepted the appropriateness of peer evaluation or applied it practically, except for the teachers working in private schools or participating in a joint study in cooperation with the university. This situation shows that teachers need to take serious steps to ensure professional development.

The teachers participating in the study focused on peer collaboration and evaluation in action research. This means that they use reflective thinking with their colleagues.

The lack of perspective on scientific research is also reflected in their implementation of action research. A broader scientific perspective will increase the potential of becoming a “teacher-researcher.” Experience, knowledge, and training opportunities do not compensate for the lack of knowledge about using action research.

Limitations

The research was limited to 20 social studies teachers working in different provinces and districts in Turkey.

Statements of Publication Ethics

We declare that we obey the principles of publication ethics.

Conflict of Interest

This study has not any conflict of interest

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