



PRIMARY SCHOOL SUPERVISORS' VIEWS REGARDING SCIENCE AND TECHNOLOGY TEACHING PROGRAM

Feride ERCAN

Abant Izzet Baysal University, ercan_f@ibu.edu.tr

Abstract

The purpose of this study was to identify the views of primary school supervisors regarding the 4th and 5th grades Science and Technology teaching program developed in 2004. Eight school administrators working in Bolu were given semi-structured interviews in which they were asked seven questions. The interview questions were related to the need for change in teaching programs, process of program presentation, applicability of the program and advantages and disadvantages of the program. Collected data was analyzed through content analysis. Primary school supervisors believe that the new teaching program will make up for the deficits in the education system. Therefore, supervisors are found to approve the changes in the teaching program. Primary school supervisors who were found to have positive views regarding the science and technology program in general stated that they like the program since it is student centered, it trains researching and inquisitive individuals and it lessens the differences in levels among students. In terms of program applicability, all of the participants stated they believed that in case necessary conditions are provided the program is applicable to a large extent. Suggestions in the light of the findings of the study were provided at the end of the study.

Keywords: School supervisors, Science and Technology Teaching Program

INTRODUCTION

Recent advances in science and technology make their presence felt in all fields from economy to education. Countries that are developing and transforming have reviewed their education systems and have felt he ended to make some changes in their curriculums in this context in order to train qualified individuals that can keep up with these changes and transformation of the 21st century. In the process of adaptation to these changes, Turkey has also reviewed and undergone a radical change in the existing educational curriculums by taking the requirements of the era and the nature of the human beings. In addition to the process of catching up with the latest advances in science and technology, reasons such as the need for a conceptual integration between educational programs and classes in the 8-year period of basic education (TTKB, 2005a) and low

performances of our students apparent in studies of international scale that Turkey participated such as TIMSS, PISA and PIRLS (TTKB, 2004) show that changes in curriculums are essential.

There have been various program evaluations that seek to provide a general picture of the changes that have been implemented in the educational system and teaching programs. (Erdogan, 2005; Ercan and Altun, 2005; Gömleksiz and Bulut, 2007; Yangın, 2007; Aydın, 2007; Seker, 2007; Degirmenci, 2007; Kara, 2008; Feryal Battal, 2008; Cengelci, 2008; Erdem, 2009; Topal, 2009; Ugraş, 2011) Since teachers are the main implementers of teaching programs, most studies in the literature include teachers' views regarding the program. However there are many components (school supervisors, teachers, administrators, students, parents etc) in the teaching process. It is thought that this study will contribute to the field due to the lack of studies related to primary school supervisors' in program evaluations since school administrator staff has a place in the process of teaching program implementations as well

METHOD

Semi-structured interview, a qualitative research method, was used in the study in order to identify the views towards educational programs. Eight school administrators working in Bolu were given semi-structured interviews in which they were asked seven questions. Qualitative method was selected to determine the participant views more clearly and to undertake the study in a more detailed manner. The purpose in qualitative studies is to present a descriptive and realistic picture to the reader about the topic of research (Yıldırım and Simşek, 2006).

Data Collection Tool

Interviews were done with eight primary school supervisors working in Bolu province center. The participants were asked seven questions which were prepared in the framework of needs identification, educational status, positive points and probable problems by consulting 2 experts.

Interview questions are provided below:

1. Do you believe in the necessity to develop and change teaching programs in specific time intervals and what do you think of the change brought about in 2004 in this context? Why?
2. Have you had a chance to learn the teaching program that was changed in 2004? or what kind of a training process did you experience that was directed to present the program?
3. Are there aspects of the 2004 teaching program that you like (that you find positive)? Please provide examples.
4. Are there aspects of the 2004 teaching program that you do not like (that you find negative)? Please provide examples.
5. What are the problems (difficulties) that you yourself encountered or heard from your teachers during the implementation of the new science and teaching program?
6. What do you think of the applicability of the 2004 Science and Technology teaching program in Turkey?
7. How do you think this teaching program can be made more productive and efficient?

Data Analysis

Data obtained from semi structured interviews was transcribed. Most of the data were recorded digitally and some of them are kept in the form of notes. After writing the data in the form of text, summary info was created to be placed in the matrix. Interview questions prepared in line with the study were effective in the identification of the themes. The information on the matrix was turned into themes which were later examined for the frequency of occurrence. After organizing the themes, they were coded (for example the first supervisor was coded as S1).

Face to face interviews that the researcher undertook by using semi-structured interview questions developed by the researcher were transcribed and later the correctness of the data was confirmed by having two independent individuals read the transcribed data. Also, in order to provide reliability, a separate individual repeated the procedures while creating the themes and coding.

FINDINGS

Primary school supervisors commented on the need for changes in education programs, the process of program presentation, problems experienced during the process of application and program sustainability for science and technology teaching program. The data was examined and analyzed in the framework of the education program. The views of 8 primary school supervisors that participated in the research regarding both the teaching program and the science and technology teaching program were taken which were presented below:

Need for change in the teaching program

All (8 primary school supervisors) that participated in the research stated that they believed in the need for change in the teaching program undertaken in 2004 since changes and innovations in educational sciences should be reflected on the education system which can only be possible by changes in curriculum.

Primary school supervisors who state that there is a lack of expressive and general skills in education believe that the new science and technology teaching program will not only provide information but will also provide students with these skills. S3 expressed his views regarding the topic:

"A change was needed in the education system along with the changing and developing conditions. There is a need for individuals who know and can apply what they know"

Primary school supervisors believe that the new teaching program will make up for the deficits in the education system. Therefore, supervisors are found to approve the changes in the teaching program.

The process of program presentation

All of the primary school supervisors stated that in addition to receiving in-service training in the process of program presentation they also participated in various seminars and meetings. While half of the supervisors stated that in-service training was productive, the other half mentioned that it was not efficient. It was highlighted that the duration for in-service training was insufficient and they were not completely enlightened due to shortcomings in the training. Primary school supervisors think that they received a quality in-service training since they directly received training from the individuals who prepared the teaching program.

Primary school supervisors believe that they received a quality in-service training since the training was provided by the individuals who had prepared the teaching program. However, there are others who believe the in-service training was not productive.

In line with the memorandum #2005/80 prepared by Head of Education and Morality and with the coordination of Bolu Directorate of National Education and the Department of Primary School Supervisors; primary school supervisors participated in the meetings provided on a school-class scale related to the implementation of the program in order to identify the problems on-site in the field and to hear about the program from its sources and they had a chance to discuss the issues with the parents. Meetings with the combined participation of administrators, parents and teachers were organized. This process was found to be effective in the presentation of the program.

Problems experienced during the process of application

Primary school supervisors who were found to have positive views regarding the science and technology program in general stated that they like the program since it is student centered, it trains researching and inquisitive individuals and it lessens the differences in levels among students. They mentioned that as supervisors, they have had problems with teachers who are resistant to the teaching program and cannot adapt to the change. They also mentioned that teachers sometimes come to class unprepared since they do not prepare lesson plans and they do not sufficient make efforts to develop themselves. S4 stated that:

“As a supervisor, my biggest problem is the lethargy of the teachers who come to class unprepared and without lesson plans. Another problem is the teachers, who follow the old program by habit, resist the new program and can not develop themselves”

While the primary school supervisors are found to be positive towards the teaching program in general, they are found not to have problems in the implementation phase directly. The teachers who are resistant to teaching program cause problems for the supervisors and the fact that there are misconceptions and misapplications related to the process is an issue for concern for them. Another important issue that was noteworthy during the interviews was the belief and trust problem between the supervisors and the teachers. It was identified that there was not mutual warmth for the roles and positions for each other in both groups. Teachers stated they themselves were the implementers of the program and knew the classroom situation the best and they argued

that most theoretical things are not applicable in practice in the same rate. Supervisors on the other hand believed that teachers did not have the willingness to develop themselves and they argued that teachers introduced other reasons (overcrowded classrooms, lack of materials and resources) as explanations for shortcomings in the implementation.

Program Applicability

In terms of program applicability, all of the participants stated they believed that in case necessary conditions are provided the program is applicable to a large extent. The supervisors mentioned that the most important factor in program applicability is teachers and that there is a need for high quality in service training along with completing the infrastructures by providing financial support to schools. S5 expressed his views related to the issue:

“The program will achieve its objective if a quality in-service program is followed and if our teachers want to develop themselves. Of course support by the government is also very important”

It is a requirement for teachers to receive high quality in service training in order for the teaching program to achieve its goal and to be implemented to its full potential. The adoption the program by the program implementers themselves will definitely affect the applicability of the program. There are important roles that the Ministry of National Education, teacher and supervisors should undertake for complete implementation of the program. Primary school supervisors hold the teachers directly responsible from the achievement of the program goals. It is seen that primary school supervisors do not take into account other factors such as infrastructure, in-service training etc. although several factors are effective in the efficient implementation of the teaching program. When the primary school supervisors were asked to provide suggestions for a more efficient implementation of the program, they have offered factors such as in-service training, lack of infrastructure and support of the Ministry as suggestions. According to the primary school supervisors the biggest role and responsibility for the implementation of the new teaching program falls on teachers themselves. Table I summarizes the views and suggestions of the supervisors regarding the teaching program

Table I. Suggestions of the supervisors regarding the teaching program

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1. Teachers should be oriented towards developing themselves and working more (S1, S2, S6)
 2. More awareness regarding the topic should be created. (S1, S5, S8)
 3. Quality in-service training should be provided.(S3, S6, S7,S8)
 4. Ministry of Education should have more extensive work on the topic. (S6)
 5. Physical infrastructure should be provided. (S5, S6, S8)
 6. teachers should be motivated and stimulated for program change.(S2, S3, S8)
 7. School administrators, supervisors, teachers and parents should develop themselves related to the issue.(S5, S7,S8)
 8. the system of examination and the teaching program should be parallel to each other (S4, S8)
 9. Media, NGOs and universities should take a role in the presentation of the program. (S1, S8)
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DISCUSSION

The effective implementation of the teaching program depends on the individuals who take part in the system of education however support should be received from other organizations and sectors. It is a reality that there are shortcomings both in the presentation and in the implementation of the program. The most effective manner to overcome these shortcomings and problems is believed to be through quality in-service training. It is also thought that physical support for schools is an important element that affects program applicability. There are studies that support this comment in the literature(Yangın, 2007; Aydın, 2007; Şeker, 2007; Feryal Battal, 2008; Kara, 2008; Erdem, 2009).

It is thought that the fact that there are mutual belief and trust issues between teachers and supervisors have make it difficult for the adoption and implementation of the teaching program. There are several studies that support this finding in the literature. It is known that teachers in the Turkish Education System have rather negative views regarding the supervisors in general (Sünbül and Inandı, 2005). Teachers see themselves as the experts in their fields and do not wish to be supervised or inspected by anyone. However, they are positive towards real supervisory support. Supervisors argue that everything will be better when teachers listen to their ideas but teachers argue that supervisors are not beneficial for them and they will be better off by themselves without inspection (Oliva, 1989; cited in: Oktay, 1999). This negative opinion has been in existence for both parties for a long period of time.

SUGGESTIONS

First of all, physical infrastructure of schools should be developed in order to effectively implement the new teaching program. It is necessary to inform all related parties in the teaching program in order to be able to use the physical infrastructure in line appropriately with the curriculum. Although in-service trainings provided by the Ministry has priority in this regard;

media, NGOs and universities should also present the program extensively as much as their resources allow them. The Ministry of Education should undertake extensive and comprehensive work in order to fully present the teaching program and to implement the program effectively. Lack of belief and trust between teachers and supervisors may have been the result of lack of communication. The barriers to communication between supervisors and teachers should be eliminated and an environment for understanding each other should be created. Both of these groups have the same purpose of presenting the target group of students with effective and sustainable education. Hence, instead of having a relationship based on seniority, these groups should be able to see each other as supplementary to their work.

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