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The Analysis of the Formation and Usability of the National Educational Inspection Information Network

Ulusal Eğitim Denetimi Bilgi Ağının Oluşturulması ve Kullanılabilirliğinin İncelenmesi

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Abstract

The aim of this research is to provide a vision for the formation and usability of the National Educational Inspection Information Network (NEIIN) (Ulusal Eğitim Denetimi Bilgi Ağı/NEIIN), which is thought to be capable of contributing to a more efficient and effective execution of the educational inspection process. It is important since it contributes to the collection and analysis of the data required for the inspection. The participants of the research are 20 Educational Inspectors working in Gaziantep. In the selection of the participants, the easy-accessible case sampling was used and the selection was based on volunteerism. The research data have been collected through the interview form technique. The content analysis method was used in the analysis of data. The research results suggest that educational inspectors think that there is a need for NEIIN in the inspection process and it will be useful. It was also found out that NEIIN should include information about schools, teachers, parents, school managers and students.

Key Words: Information Network on National Educational Inspection, school, inspection

Özet

Bu araştırmanın amacı, eğitim denetimi sürecinin daha etkili ve verimli bir şekilde gerçekleşmesine katkı sağlayabileceği düşünülen Ulusal Eğitim Denetimi Bilgi (NEIIN)'nın oluşturulması ve kullanılması konusunda bir öngörü oluşturmaktır. Denetim için gerekli olan verilerin toplanması ve analiz edilmesine katkı sağlaması açısından önemlidir. Araştırmanın katılımcıları Gaziantep'te görev yapan 20 Eğitim Müfettişinden oluşmaktadır. Katılımcıların seçiminde kolay ulaşılabilir durum örneklemesi kullanılmış ve gönüllülük esas alınmıştır. Araştırma verileri görüşme formu yöntemiyle toplanmıştır. Verilerin analizinde içerik analizi yöntemi kullanılmıştır. Araştırma sonuçlarına göre eğitim müfettişleri denetim sürecinde NEIIN'nın ihtiyaç olduğunu ve kullanılmasının faydalı olacağını düşünmektedirler.

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NEIIN'da; okul, öğretmen, veli, okul yöneticileri ve öğrencilere ilişkin bilgilerin bulunması gerektiği ortaya çıkmıştır.

Anahtar Kelimeler: Ulusal eğitim denetimi bilgi ağı, okul, denetim

I.INTRODUCTION

Inspection is a process that comprises all kinds of professional assistance and counseling services provided by inspectors or experts in order to increase the efficiency of instructional issues in educational organizations (Karagözoğlu, 1977). Inspection is one of the most important components of the educational system, because the only way of determining to what extent the educational objectives are achieved is to collect the required data through inspection and analyze these data rationally (Sarpkaya, 2004). The existing inspection system is far from a modern understanding and unable to meet the expectations (Ada & Akan, 2009).

The main aim of educational systems is to improve the skills of people in the society to be able to see and solve problems by considering the society's needs as well as increasing their satisfaction levels. It is a current obligation for educational organizations, which will realize these aims, to shape their administrative philosophies according to the requirement of the age and the future by taking into consideration the changes and developments in the world (Gülşen, 2000, p.3).

The inspection in the elementary education level is carried out by educational inspectors. The duties and authorities of inspectors are specified in the Ministry of National Education Regulation for Presidencies of Elementary Education Inspectors (Milli Eğitim Bakanlığı İlköğretim Müfettişleri Başkanlıkları Yönetmeliği) (1999) as follows: counselling and on-the-job training, inspection and evaluation, examination, investigation and inquisition (Yılmaz, 2009). It cannot be said that the time is enough in the visits for both counseling and inspection to evaluate teacher success and to provide counseling. Teachers are evaluated mostly in short-time observations. Besides, teachers employed in village schools are obliged to go to town centers to respond to official correspondences and to supply the needs of schools (Yıldırım, 2001).

Some suggestions are put forward to alleviate these problems encountered in the inspection process (Yıldırım, 2001). Among these suggestions are; the re-structuring of the communication system for the inspection in elementary education to be carried out effectively and the use of the internet for this purpose. All schools in a city or all schools in entire Turkey can be interconnected via computer networks via internet. Circular letters and new developments and practices can be tracked through this network. In this way, inspectors can follow and inform teachers from home or from office without losing time.

Informationn etwork studies are becoming more popular day by day in social sciences (Watts, 2004). The use of the network planning and evaluation technique in the planning and control of research and development is accepted (Davis, 1963). Social scientists use network analysis to investigate the relationships among cultures, institutions and individuals (DiRamio, Theroux and Guarino, 2009, 150).

When information networks are ensured to include all the data concerning school stakeholders (e.g. parents, students, teachers, administrators) and school conditions (e.g. environment), the use of information networks in the inspection process will make it possible to clearly see the connection between school stakeholders and school conditions, and to make comparisons between different schools. In addition, thanks to NEIIN used for inspection process, the inspector can access the re data about the inspection process in advance, and might have the opportunity to direct the inspection efficiently. The educational inspector's prior data collection about the people and conditions to be inspected, making inferences based on these data, and making efforts to improve the teaching process by interviewing the people to be inspected in line with his/her inferences are of high importance for the inspection process (Köklü, 1996). Lack of information, status differences, time pressure and inappropriate places are pointed out as the factors that obstruct effective communication in inspection (Yazıcı and Gündüz, 2010). When considered all these explanations, it becomes apparent that the information network that can be used in educational inspection might reduce the communication barriers between school stakeholders and educational inspectors, and might contribute to the actualization of the developmental inspection approach.

The modern inspection understanding aims at improving the learning-teaching process. The modern inspection understanding includes activities that assist the teacher and influence the teacher behavior and the outcome. These activities are based on the formal structure of the school. It is necessary in an effective inspection process to define and analyze the school's facilities and conditions (Ünal, 1989). At this point ınformation networks will provide significant assistance to teachers in defining and analyzing schools' facilities and conditions.

Information networks are used in various countries in a wide range of educational fields including the inspection process. Networks such as "Connexions Service" in counseling and providing suggestions to youths in England; and "Modern Apprenticeship Scheme" that encourages professional education in New Zealand are used (Strathdee, 2007). The Icelandic Educational Network (IEN) is another educational network formed to encourage the use of interactive communication for educational purposes. In this direction, IEN was set to work in service areas such as providing a forum service for discussions on educational matters, providing websites for educational institutions, creating educational web with the participation of all stakeholders and providing online distant education (Thorsteinsson, Espinoza & Justice, 2002). The capability of information networks to serve in such wide range of educational fields gives rise to the idea that all these functions can be brought together for the inspection process. Although the use of information networks in the inspection process can be considered to be a recent development for Turkey, there exist countries that use information networks in inspection. In France, for example, through the information network system established by the Ministry of Education and Science in 2005 for the purpose of assisting and inspecting students at the elementary level, student classes and groups, school-wide student monitoring operations, and the daily management of the

principal can be tracked, and the database can be used by educational inspectors (Özmen & Yasan, 2007).

There exist various modules designed for different fields of the education system in Turkey. The main existing information systems are the main system called Ministry of National Education Information Systems (Milli Eğitim Bakanlığı Bilişim Sistemleri/MEBBIS) that includes applications and modules such as e-school and e-graduate, and the Provincial and District National Education Directorates Management Information System (İl ve İlçe Milli Eğitim Müdürlükleri Yönetim Bilgi Sistemi/ILSIS) which is one of the sub-systems of MEBBIS. Undoubtedly, these systems contain various data that can be used in educational inspection. However, it should be noted that these systems have not been designed to be used in the field of educational inspection and they do not contain all the data that are needed for an effective inspection process. These systems are limited to present the data avaailable in official documents. These systems include neither the psychosocial information that could enable the inspection function to be developmental and nor any module enabling active sharing of information and ideas. It is another topic of discussion that to what extent the information available in the existing systems can be used in ensuring developmental inspection.

In this study, the use of NEIIN in educational inspection is proposed in order to overcome the shortcomings stated above. By focusing on the usability of NEIIN in educational inspection and the kind of processes in which it should be considered, the new outlook that NEIIN will provide the inspection process will be revealed. NEIIN can be used as a reference guide and an information-opinion sharing platform.In this platform educational inspectors can access all the data they need in the inspection process and they can connect the data more precisely. NEIIN is a time-saving application which presents the data needed in the inspection process for inspectors in carrying out inspection process according to a plan.

For NEIIN used in the inspection process, the content, design, usage and functions of the network can be considered to be important problematic areas. It is necessary, for Intelligent Information Systems, to conduct research on the storage of the data, processing and design, visualization, indexation and creation of data repository (Cherniavsky & Soloway, 2002). In this study, this problem has been tried to be solved by considering all the stages that NEIIN would get through from the formation process to the use process. In this way, it was attempted to present not only the ways NEIIN should be formed but also the ways it could be used more efficiently and easily in the inspection.

The Aim of the Research

The aim of this research is to provide a vision for the formation and use of NEIIN, which is thought to be capable of contributing to a more efficient and effective application of the educational inspection process. To this end, opinions of educational inspectors on the formation and use of NEIIN were attempted to be obtained. Following questions have beendiscusse in the current study;

1. Do educational inspectors need NEIIN?

2. What kind of information should NEIIN contain, according to educational inspectors?
3. What are the opinions of educational inspectors on the benefits of NEIIN?
4. What are the opinions of educational inspectors on the usability of NEIIN?
5. What are the opinions of educational inspectors on the formation and efficient use of NEIIN?

II. METHODOLOGY

1) Research Design

This research has been designed in the scanning model. Since the research is aimed at determining the opinions of educational inspectors on the formation and use of a national inspection information network, a case study, one of qualitative research designs is used. Qualitative research is oriented towards the comprehension of the "why" of human behaviors. A qualitative research has been carried out since the data were aimed to be described in their deepness and richness. The most essential feature of a qualitative case study is the investigation of one or more cases in depth. In other words, the factors (environment, individuals, events, processes etc.) related to a case are investigated with an integrated approach (Yıldırım and Şimşek, 2005, p.77).

2) Participants

The participants of the study are 20 educational inspectors working in Gaziantep in the 2009-2010 Academic Year. Since the responses given to the questions directed to the participants start to be repeated after a certain number of interviews, the number of interviews was limited to 20. According to Glasser and Strauss (1967), "the researcher may decide that s/he obtained adequate amount of data source when the revealing concepts and processes start to repeat each other" (Quoted by Yıldırım & Şimşek, 2006, p.115). Participants were determined through the way of easy-accessible case sampling and on the basis of volunteerism. Of the participant educational inspectors, 18 are male and 2 are female.

3) Data Collection Tools and Collection of Data

The data were obtained using interview form. According to Patton (1987), "the Interview Form method is prepared in order to obtain same kinds of information from different people by covering similar issues" (Quoted by Yıldırım & Şimşek, 2006, p.122). In order to ensure the content validity of the questions in the interview form, subject-specialist opinions have been obtained related to the prepared questions. Required modifications in questions were made in line with the expert suggestions. The interview questions directed to the participants in the research are presented below:

1. Is there any need for an information network through which you can access all kinds of information you need in school and teacher inspections?
2. Do you need an information network that can be formed for inspection?
3. What kind of data should be included in such an information network?
4. What sort of benefits would such an information network in inspection process provide?

5. What do you think about the usability of the national information network in the inspection process? Can you give your opinions with reasons?
6. What are the things that should be done for the effective use of the national information network in the inspection process?

In the interviews conducted, the participants were given different numbers and their opinions were coded with the numbers assigned to them. In order to ensure reliability in the research, an approval analysis on the conformity between the data and the results, and a consistency analysis on the coding process were carried out by a subject-specialist. By giving examples from the participants' statements in the presentation of the data, the validity of the research was attempted to be increased.

4) Analysis of Data

The content analysis method was used in the analysis of the data and example expressions from the participants' opinions were presented. The responses given to the close-ended questions were also depicted numerically depending on whether they fall into the category of yes or no. As a result of the content analysis; six main themes, five sub-themes under the second main theme, and three sub-themes under the sixth main theme were defined. Five of the main-themes were defined based on the research questions, and the fifth main theme was determined based on the research data. Sub-themes, on the other hand, were defined according to the obtained data. Conceptual encodings were done in line with the data obtained from the research depending on the main and sub-themes. The main themes and sub-themes defined in the research are as follows:

Theme 1: The need for NEIIN
Theme 2: The Data Included in NEIIN
Sub-theme 1: The Data about the School
Sub-theme 2: The Data about Teachers
Sub-theme 3: The Data about School Managers
Sub-theme 4: The Data about Students
Sub-theme 5: The Data about Parents
Theme 3: NEIIN's Benefits
Theme 4: The usability of NEIIN
Theme 5: Obstacles in the Use of NEIIN
Theme 6: Requirements for the Effective Use of NEIIN
Sub-theme 1: Things need to be done at the Preparation Stage
Sub-theme 2: Things need to be done at the Design Stage
Sub-theme 3: Things need to be done at the Utilization Stage

III. FINDINGS

1) Findings Related to Educational Inspectors' Needs for the Use of NEIIN

All of the participant educational inspectors reported that they need the formation and use of NEIIN in the inspection process. They stated that the transition to the use of National Inspection Information Network is necessary. An example of similar inspector opinions is given below:

"Yes. It is necessary to use the national inspection information network in the inspection process. The national information network should be put into practice as soon as possible" (M2).

"I think the network will be useful. I would like to use such an information network in inspection" (M8).

"There really exists a need for a system through which we can access the required information and share opinions with our colleagues in the inspection process" (M14).

"Such an application would be very useful; I would like to use it" (M17).

2) Findings Related to the Data that Should be Included in NEIIN

The types of data that should be included in NEIIN according to the participants are grouped five different dimensions: data about the school, about school managers, about teachers, about students and about parents.

Data about the School

As a result of the conceptual encodings, it was determined that 16 types of data about the school were considered appropriate to be included in NEIIN. The data about the school that should be included in NEIIN according to the educational inspectors are presented in Table 1.

Table 1.

Data about the School that Should be Included in NEIIN

School's physical properties	
School's facilities	Teacher profile
Characteristics of the environment	The relation between the number of personnel and the number of students
School's social success	School's contact information
School's academic success	School projects
Conclusions of previous inspections	The parent-teacher association's active income-expenses and expenditures
Personnel conditions	Competitions the school entered
Needed personel	Activities done to create school culture

The inspectors have reported that data especially about the physical properties of the school, its facilities, previous inspection results, characteristics of the environment, and the school's social and academic achievements should be available in the information network. These fields of data came to the forefront among the data about the school. Examples from the participants' expressions are given below:

"It should include information about the number of classrooms in the school, the conditions of the school garden, the conditions of course equipments, educational statuses of families located around the school and inspection notes about the school" (M8).

"It should include information about the school's physical conditions, facilities, the environment, placement test (SBS) results, promotion data and inspection data. The school's contact information should also be included" (M20).

"It should include data about the physical conditions of the school and its departments, the school's achievement level in exams, students' achievement levels by years, the parent-teacher association's active incomes and expenses, its expenditures, and the projects implemented in the school to improve education" (M6).

The inspectors have reported that ULEBDA should include: the number of classrooms, equipments and the condition of the school garden, in terms of the school's physical properties; existing information technologies and equipments, in terms of the school's facilities; educational statuses of the families around the school and socio-cultural characteristics of the environment, in terms of the characteristics of the school's environment; and achievements in exams, students' achievement level in classes by years and promotion data, in terms of the school's academic achievement.

Inspectors demand that ULEBDA should include not only information based on quantitative data but also information about school projects and activities carried out to create school culture. This demonstrates that inspectors take also the qualitative dimension into consideration in their inspection process. In addition, one of the participant inspectors reported that it is not necessary for the information network to contain information about the school, and it would be adequate to have data only about teachers and managers. A part of the inspector's opinions on this issue is presented below:

"It may not be necessary to include information about the school. Similar data are available in Standards for Elementary Education Institutions (İlköğretim Kurumları Standartları) and e-school module. In this system, data that are possibly included in e-school may not be necessary" (M19).

Data Related to Teachers

The data related to teachers that should be included in NEIIN according to the educational inspectors are presented in Table 2.

Table 2.
Data about Teachers that should be Included in NEIIN

Professional experience	Personal data
Parent opinions	Field of graduation
Schoolmaster's opinions	Courses that s/he has taken during his/her education and their definitions
Student opinions	Samples of activities s/he prepared
Course books used	Projects s/he prepared
Inspection results	Work s/he has done about school/family and environment
Courses, activities and projects participated	Methods s/he uses in class
Areas of interest	Equipments s/he uses
Pre-vocational training	Tools/equipments s/he developed
Perceptions concerning the profession	Contact information

Inspectors consider it to be useful to include all kinds of professional data about teachers from the stage of professional training in the information network. Undoubtedly, this will be possible only if teachers share these data efficiently and correctly. This shows that teachers will be highly responsible in the formation process of NEIIN. Sample expressions are presented below:

> *"Without violating privacy, the teacher's personal information, and data about manager, teacher, parent and student opinions about the teacher, about the activities and courses s/he participated, and about his/her professional experience should be available" (M1).*

> *"It should include information about teachers' professional experiences, parent and school administration opinions about teachers, information about the course books used by them and the previous inspections that teachers have undergone" (M4).*

Data Related to School Principals (or Administrators)

The data related to school managers that should be included in NEIIN according to the educational inspectors are presented in Table 3

Table 3.
Data about School Managers that are Should be Included in NEIIN

Professional history	Educational status
Courses s/he attended	Projects s/he participated
Teacher opinions	Exams s/he took
Student opinions	Project samples s/he prepared
Parent opinions	Self-development activates
Managerial training s/he received	Personal information

Educational inspectors think that data indicating school managers' performances and educational histories should be included in NEIIN. The finding that they want teacher, student and parent opinions about school managers to be included in the information network might indicate that they want to learn managers' performances in all fields. Inclusion of stakeholders' opinions in the information network implies that the formation process of the information network should take place on a basis with multiple stakeholders. Samples of inspectors' opinions on the data about school managers are presented below:

> *"It should include school managers' professional experiences and educational backgrounds, information about the courses and exams they have taken, opinions of teachers, students and parents about them, and project samples administration have prepared" (M10).*

> *"It should include data about the opinions of teachers, students and parents about school administrators; and the activities, courses and projects they participated in" (M11).*

Data Relate to Students

The data about students that should be included in NEIIN according to the educational inspectors are presented in Table 4.

Table 4.

Data related to Students that Should be Included in NEIIN

Grades	Achievements in exams
Personal information	Their perceptions and expectations from the school
Teacher opinions	Their expectations from teachers
Parent opinions	Personal, mental, physical and social development processes
Areas of interest	The optimum personal, physical, mental and social development levels they should normally be at
Courses and activities they participated in	Students' achievement levels by cities
Social and cultural activities they participated in	Special skills

When the types of data about students that are wanted to be included in the scope of NEIIN are examined, it is observed that they attach importance to students' developments not only in cognitive field but also in all fields. The finding that inspectors want to learn students' perceptions and expectations might imply that they want to specially examine the subjects related to student expectations in the inspection process. Samples of inspectors' opinions on the data about students are presented below:

> *"Students' personal, physical, mental and social development processes and the optimum levels of them should be indicated. Also, the*

courses they took, opinions of parents and teachers on them, students' special skills and areas of interest should be indicated" (M18).

"The network should contain data about students' perceptions and expectations from the school, and their expectations from teachers" (M16).

"Students' grades, personal data, teacher and parent opinions on them, their areas of interest, and the courses and activities they participated might be included. Moreover, their standings in general exams should be included" (M2).

Data Related to Parents

The data related to parents that should be included in NEIIN according to the educational inspectors are presented in Table 5.

Table 5.

Data Related to Parents that Should be Included in NEIIN

Professional data	Educational statuses
Their perspectives on education	Data about their monitoring the student at school, in the environment and in the family
Support they provide to the school	Their expectations from the education process
Socioeconomic statuses	Their expectations from the school management
Frequency of attendance in school meetings	Income level
Their expectations from the school	Sociocultural status
Their opinions on the school	

Educational inspectors frequently voiced the idea that data about parents' socioeconomic statuses should be included in the information network. This might imply that a judgment is prevalent among inspectors that the socioeconomic level influences school processes and student achievement. It is inferred from the opinions of the participant inspectors that they want to learn parents' social, economic and cultural profiles. This might stem from the willingness of them to associate school processes and academic achievement with familial matters. Samples of inspectors' opinions on the data about parents are presented below:

"The network should include parents' expectations, their interests in school meetings and their socioeconomic conditions" (M13).

"Data about parents' educational statuses, economic and social conditions, their monitoring the student at school, in the environment and in the family, and their expectations from the education and management processes should be included" (M16).

"Data about parents' perspectives on education and the support they provide to the school might be available" (M14).

As it is the case in other types of data that are wanted to be included in the national information network, qualitative types of data are prominent among the data about parents. This tendency might give rise to the idea that inspectors attach importance to qualitative performance indicators in the inspection process. In addition, the desire to learn such detailed information about parents might indicate that inspectors want to carry out the inspection with an integrated point of view that considers various types of data. In this respect, it can be argued that the use of national information network that contains numerous types of data might help inspectors to have integrated perspectives.

3) Findings Related to the Benefits of NEIIN

Educational inspectors' opinions on the benefits of NEIIN are presented in Table 6.

Table 6.
NEIIN's Benefits

Obtaining information about the teacher	Being up to data
Defining inspector proficiency	Creating perspectives
Obtaining information about previous performances	Sharing information and experiences
Objective estimation	Personal development
Obtaining prior information about the school	Objective evaluation
Obtaining prior information about school managers	Reducing work load
Assisting to planning	Helpful in developing suggestions
Time saving	Contribution to the effective inspection
Nation-wide cooperation	Helpful in developing strategies
Healthy decision making	

Educational inspectors considered NEIIN's potential benefits for themselves and in terms of the effectiveness of the inspection process. There are inspectors who think that NEIIN will reduce their work loads and will be time-saving. Examples of such opinions are given below:

"It would be time-saving. It would render the inspection process effective since we have the data prior to the inspection. It ensures working correctly and regularly. It reduces our work load" (M8).

"It will reduce the work load. It might be time-saving. Educational managers will benefit from each other's experiences" (M17).

The most important benefit of NEIIN is its ability to ensure the inspection process to be efficient and effective. Educational inspectors think that they will be

able to make the inspection process more effectively since NEIIN will provide them with data about the school and its stakeholders. They think that they will be able to take more accurate decisions and they will be able to do planning and objective evaluation. Besides, they reported that it would provide a perspective to beginner educational inspectors. Examples of such opinions are given below:

> *"It will ensure nation-wide and provincial-wide cooperation, and developments can be followed instantly. It will provide people with the opportunity to renew themselves and share their knowledge and experiences. It would create a new perspective. It would give opportunity for a perspective for beginner colleagues" (M18).*

> *"Accurate data about the school can be accessed. Suggestions can be proposed in works to be conducted based on existing data" (M2).*

> *"If the system begins to function, data about the employees' past performances can be obtained. If a problem is encountered, more objective estimations can be made by obtaining information about not only the proficiency of the inspector but also the teacher's performances by looking at previous inspections" (M20).*

> *"Information about teachers, managers and the school can be obtained prior to the inspection. It might be of importance for the strategies to be developed in the inspection process. We might learn about what kind of personnel we will face" (M16).*

> *"It gives rise to the possibility of doing planning about the work to be done" (M14).*

4) Educational Inspectors' Opinions on the Usability of NEIIN

Of the 20 participant primary education inspectors, twelve stated that NEIIN could be used in the inspection process, four stated that it could not be used in the inspection process, and four stated that they were uncertain. Those educational inspectors who reported that they were uncertain stated; "*the process will show whether it can be used or not" (M1)*. Those who are uncertain at least think that the use of NEIIN should be tested. Although all the participant inspectors have reported that they would like to use NEIIN in the inspection process and proposed their suggestions about its potential features and uses, there exist inspectors who have doubts about the usability of the system. These doubts will be discussed in the following section (see: Table 7).

5) Findings Related to the Obstacles in the Use of NEIIN

Educational inspectors reported that they have doubts about how qualitative data -such as the competencies of inspectors to use technology, environment's characteristics, perceptions about the profession, and stakeholders' opinions on teachers and the school- can be included in NEIIN. Inspectors' opinions about the obstacles in the use of NEIIN are presented in Table 7.

Table 7.
Obstacles in the Use of NEIIN

In competencies of several inspectors in using technology	Objectivity of the qualitative data included in the information network
Inspectors will not make efforts to use the information network	How qualitative data will be presented in the information network
The school management's tendency to control the inspection	

Examples of the educational inspectors' opinions about the obstacles in the use of NEIIN are presented below:

> *"The network might become unused, because inspectors are unwilling to use technology" (M4).*
>
> *"Problems might arise in the use of qualitative data. For example, the schoolmaster's opinion about the teacher, and the inspector's opinions about the teacher and managers might not be objective" (M15).*

> *"I don't think that most of the inspectors within the system will make efforts to access the data by using the internet" (M12).*

> *"How can the qualitative information about the personnel (teachers, managers and other personnel) be included? For example, the person has taken part in courses or various personal development programs. However, are the things learned put into practice in the teaching process? This might be a problem" (M7).*

> *"I don't think that it could be used due to the school administrators' tendencies to control the inspection process" (M3).*

It is inferred from these opinions that there exist some inspectors who are not considered competent to use technology. In addition, the opinion that people will not make efforts to use NEIIN might also indicate the unwillingness to use technology.

6) Findings about the Formation and the Effective Use of NEIIN

Educational inspectors have considered the requirements for the formation and the effective use of NEIIN under three stages: preparation, design and utilization.

Activities need to be done at the Preparation Stage

Activities that need to be done at the preparation stage, according to the educational inspectors, are presented in Table 8.

Table 8.

Activities need to be done at the Preparation Stage of NEIIN

Informing parents	Avoiding putting highly private information in the information network
Informing inspectors	Conformity of the information network to the renewed program
Informing school administrators	Carrying out sample Works
Informing teachers	Ensuring the information network not to pose risks for the personel
Informing students	Giving inspectors the opportunity to work independently
Examining examples implemented in other countries	Definition of inspection criteria by relevant people

Educational inspectors think that it is necessary to inform all stakeholders and ask for their suggestions at the preparation stage of NEIIN. Another prominent idea is the necessity to examine examples from other countries. Examples of such opinions are given below:

> *"It is necessary to inform inspectors and carry out sample studies on this issue" (M1).*
>
> *"At the preparation stage, applications in other countries can be taken as examples. Inspectors, teachers, managers and parents should be informed and their suggestions should be taken" (M6).*
>
> *"Opinions of all stakeholders within the inspection system should be obtained. Examples in other countries should be examined" (M14).*
>
> *"Examples in other countries should be examined and adapted into the social structure. Then, all relevant actors should be informed" (M18).*

Among the things that should be done at the preparation stage, according to the inspectors, are enabling inspectors to work independently in the use of NEIIN, avoiding confidential information about individuals to be included in the network, and ensuring the conformity of the network to the renewed program. Examples of inspector opinions focused on these issues are presented below:

> *"Personal and private information should not be so detailed that individuals are harmed. Moreover, the criteria to be included in the system should be asked to relevant people" (M19).*

"Parents, school managers and inspectors should be informed. Suggestions should be taken, and inspectors should be given the opportunity to work independently from the management" (M3).

"The most important of them is to render the inspection process conformable to the renewed program. Then, it is necessary to inform those in the inspection process (inspectors, school managements, teachers, parents and teachers). Besides, different inspection processes in different countries should be examined" (M15).

The demands that NEIIN should be in concert with the existing program structure and the inspection criteria should be defined by relevant people indicate the necessity to attach importance to the content of the information network at the preparation stage, too. For the evaluation criteria to be defined by active participants of the inspection process might increase the functionality of the information network in practice.

Activities need to be done at the Design Stage

Activities that need to be done at the design stage, according to the educational inspectors, are presented in Table 9.

Table 9.

Activities need to be done at the Design Stage of NEIIN

Personal login password for inspectors	Ease of use
Users' right to access information within the framework of their responsibilities	Determination of people responsible for recording and renewing data
Exclusive use rights for inspectors	Presentation of the data comparatively by schools
Simple design	Ensuring stakeholders not to intervene in others' Works
Allocation of different sections for each of school stakeholders	Ability to see information about schools in other cities
Regulation of forum pages	

The most voiced opinion by education inspectors about the design stage is about how the system will be accessed and who will use it. While a part of the inspectors would like the system to be exclusive only to them, others stated that it is necessary for all of school stakeholders to have the right to access the system. Examples of inspector opinions on this issue are provided below:

"Inspectors should have login password and the system could be viewed only through login" (M3).

"It should be a nation-wide network to which only inspectors can sign-up and be able to see the data" (M12).

"It should have a simple design. Everyone should be able to enter the system but sections should be arranged separately for managers, teachers, inspectors, parents and students. Forum pages should be arranged accordingly" (M16).

"Inspectors, managers, teachers, parents and students should be able to login to the system with passwords and put their works on the system. Groups should not intervene each other; they should be informed about others' opinions or works" (M7).

There exist inspectors who offered suggestions for the solution of the problem of how and by whom NEIIN should be used. Some inspectors demanded a balance to be set between usage and responsibilities by stating "U*sers should be given right to access the data according to the responsibilities laid on them"*.

Some other notable suggestions that might be taken into consideration at the design stage are; ensuring the ability to see information about schools in other cities, enabling inspectors to share ideas on forum pages, and the presentation of schools' data comparatively. Some examples are given below:

"Responsible people for recording and updating data should be determined, and it should be an easy to use system. It would be useful if the data about schools are presented comparatively. Forums can be designed to allow inspectors' information sharing" (M11).

"Schools in other cities should also be included in the network" (M5).

Activities need to be done at the Utilization Stage

Activities that need to be done at the utilization stage, according to the educational inspectors, are presented in Table 10.

Table 10.

Activities need to be done at the Utilization Stage of NEIIN

Constant updating	Readjustments according to feedbacks
Getting feedbacks	Providing transparent data

Educational inspectors presented more detailed opinions at the preparation and design stages. Suggestions for the utilization stage of the information network are; update of data, getting feedbacks from stakeholders and making necessary adjustments accordingly. This indicates that inspectors attach more importance to the preparation and design stages. Examples from the educational inspectors' opinions about the utilization of the information network are given below:

"Data should be updated continuously. Feedbacks should be taken into consideration. Adjustments should be made in the system accordingly" (M2).

"There should exist people who are responsible for the continuous update of the data" (M8).

The difference between the opinions about the utilization stage is about the person or people who will update the information system. Two different opinions have arisen: specially assigned people at the position of system administrators should update the data, and school management or teachers should update the data.

IV. CONCLUSIONS and DISCUSSION

Educational inspectors think that information, which can be used in the inspection process, about the school, school administrators, teachers, parents and students should be included in NEIIN. In the Ministry of National Education Presidencies of Educational Inspectors Instructions for Counselling and Inspection (Milli Eğitim Bakanlığı Eğitim müfettişleri Başkanlıkları Rehberlik ve Teftiş Yönergesi) (2001), conditions to be examined in an institution inspection are stated as follows; physical conditions, educational conditions, office affairs, student affairs, personnel affairs, accounting, belongings, and floating capital affairs and inventory stock. According to the findings of the research, educational inspectors demanded the school environment to be included in the scope of inspection by adding parents to the conditions that might be examined in an institution inspection..

Inspectors would like school stakeholders' opinions to be included in NEIIN. This demand might show that school stakeholders' opinions can be considered to be a part of the inspection process. In a similar fashion, Gülşen (2009), in the study carried out with educational inspectors, have determined that inspectors think that obtaining the opinions of the environment to increase school success, assigning teachers responsibilities, and including students' opinions are applicable in the inspection system. Teachers are of the opinion that the evaluation would be more reliable and valid, if parents are considered to be a data source (Özgan &Kovlu, 2010)

Inspectors would like previous inspection results to be available in NEIIN. Özmen and Kömürlü (2009), in their study through which they investigated inspectors' opinions about the use of electronic product folder in educational inspection, have determined that inspectors would like to see the registration and inspection grades of previous years in the electronic product folder. Given the fact that electronic product folders can be included in the scope of information networks, it is observed that inspectors want to access inspection results easily and instantly.

The participant inspectors would like information about schools' environments and facilities to be included in NEIIN. Öztürk and Gök (2009) have determined that ignoring schools' environmental conditions and facilities is among the problems encountered in institutional inspection. NEIIN, by enabling inspectors to know the

characteristics of the school's environment prior to the inspection, might render it possible for inspectors to make more accurate and integrated inferences.

The participant inspectors think that the use of NEIIN in the inspection process will be time-saving. It is notable that the lack of time allocated by inspectors to inspection is determined in most of the researches carried out on educational inspection. Öztürk, Gök and Kıvrak (2009) have concluded that inspectors consider the lack of time allocated for institution inspection and lack of further tracking of the improving measures proposed after the inspection are problems. Therefore, it can be said that the most important contribution of the national information network to the inspection process will be that it will assist inspectors to use their times efficiently.

Educational inspectors consider the possibility of active transfer of information to be among the benefits that NEIIN might provide to the inspection process. NEIIN will also be helpful in obtaining covered information that cannot be obtained during inspectors' short visits to institutions. In this respect, it can be stated that the information network could be used in preventing the problems created by the "slowing down" character of bureaucracy.

Educational inspectors think that all inspectors working in the educational system are not capable of using technology at a level adequate for using NEIIN. Akbaba Altun and Memişoğlu (2008), in their study with educational inspectors, have determined that inspectors do not possess adequate knowledge and skills necessary to inspect computer courses and information technology classrooms. It can be stated that this finding supports the finding that educational inspectors do not have the adequate command of technology.

There are some, among educational inspectors, who think that it could be useful to present the data in NEIIN comparatively by schools. One of the issues that need to be considered while designing network studies is to define levels of analysis. While defining levels of analysis, comparisons of mostly social structures such as organizations and communities are dealt (Marsden, 1990). Therefore, it can be stated that inspectors made a highly accurate demand in terms of network design.

The participant educational inspectors think that everybody, who will be participated in this application in any way, should be informed about this network, in order to obtain desired outcomes from the application of NEIIN. Fullan (1991) suggested that the main reason of the failure of educational reforms is the inability of participants to fully understand the change. For the success of NEIIN, which can be considered to be a reform in the inspection process, school stakeholders and inspectors should be informed about the use and the content of this network.

Networks facilitate the obtainment of the organizational resources that are important for school performance. These resources are physical, human, intellectual, social/emotional, political and social capital resources (Hite et al, 2006). For the obtainment of especially social/emotional resources, it is necessary to primarily determine what the social/emotional deficiencies are. Determination of these deficiencies is surely the task of the inspection function. However, it is necessary to determine the perceptions and expectations of all actors who take part in school processes from the school and from the education, in order to be able to

determine these deficiencies. It does not seem highly likely for educational inspectors to thoroughly analyze these perceptions and expectations in the short period of time they carry out inspection. Therefore, this negatively influences the improvement of school performance. Since NEIIN includes school stakeholders' opinions and since it enables inspectors to directly review these opinions, it might be an effective tool to provide the resources necessary for the improvement of school performance

The starting point of the research had been constituted by the facts that the current inspection system does not allow the adequate degree of information sharing, the time burden obstructs beneficial inspecting practices, and the lack of a single reference source via which educational inspectors could access all kinds of data necessary for the inspection. After the research, it was observed that the issues that had constituted the starting point of the research were considered to be problems by inspectors, too. NEIIN, which is proposed to be formed and used for the solution of these problems, will be an important tool to render the educational inspection a more active and planned process, which is not oriented towards detection but towards the solution of the detected problems.

Based on the research findings, the following suggestions can be put forward for the use of the national information network in the inspection process:

1. Inspectors' opinions should be asked at the preparation and design stages of the formation of NEIIN.
2. At the stage of transition to the utilization of NEIIN, all stakeholders who will work in the formation of the information network should be informed thoroughly.
3. Special trainings should be provided to educational inspectors on the utilization of information technologies.
4. Timely and accurate transfer of information by the school management and other school stakeholders, about the school and about themselves, to NEIIN should be controlled.
5. A unit should be formed, which is responsible for updating the data included in NEIIN.
6. Perspectives of different school stakeholders should be considered in researches that are planned to be conducted on the use of information network in educational inspection.
7. In studies on information network in educational inspection, it might be useful to comparatively analyze the examples of information networks in different countries and the national information networks to be formed and used.

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