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Friendliness and functionality of the “Myschool” school management information system depending on gender

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Abstract

Myschool is an online Information System aimed at the computer support of school units and administrative structures of education. It is used for the organization and administration of a school unit, carrying out all its tasks, as well as for the control by the regional structures and the Ministry of Education. The main services it offers are the central database that automatically accepts the data entered by the school units, the secretarial support of the Kindergartens, Primary Schools, Gymnasiums, Lyceums and Vocational Lyceums of the country, the access to specific data of the central database by the Prefectures and Regional Directorates of Education for their monitoring and further utilization and the support of the conduct of the Panhellenic Examinations through the electronic registration of the preferences of the candidates and the support of the grading centers. The purpose of this research is to record the views of teachers serving in the schools of Secondary Education (Gymnasiums, Lyceums and Vocational Lyceums) regarding the usability, friendliness and functionality of the Management Information System "*myschool*" in relation to gender, in the administrative operation of secondary schools in Greece (Economou, G. & Georgopoulos, N. 2004).

Keywords: Myschool, information system, gender, education.

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Introduction

According to UNESCO (2003) the Educational Management Information System is the system that has the main goal of providing reliable qualitative and quantitative information, both for the formulation of educational policy and for the organization and operation of education. Stachteas (2009) emphasizes that Educational Information Systems are a category of Information Systems with the object of producing that information which is necessary for both teachers and school officials. Also, Telem (1996) defines the Teacher Management Information System as an information management system designed to match:

- the structure,
- the labor management,
- the educational processes and
- the special needs of the school.

By providing information through such a system, those decisions are made which aim at improving the work of the school unit, both administratively and didactically, at both strategic and operational level. They therefore produce information that helps in the exercise of management, such as:

- the attendance,
- the creation of evaluation files,
- the production of various reports,
- the financial management of resources,
- the distribution of staff etc.

From the above, its usefulness in a school unit is understood, but in order for such a tool to be useful, it must be immediately available to those who need it, to meet the needs of as many users as possible in the field of education and to be easy in its use (O'Brien, 1999).

The rate of use of Information Systems in education, admittedly does not keep pace with the corresponding rate of use of similar systems in other areas. However, in the information society, the importance of the systematic collection, processing and analysis of educational data in order to produce useful information for teaching and administrative applications has been recognized by all (Bell, L. 1980). In 2013, the Ministry of Education, in the context of the upgrade and modernization of its information infrastructure, completed the development of an Information System addressed to the school units and its decentralized administrative structures, aiming at (Saitis, 2000):

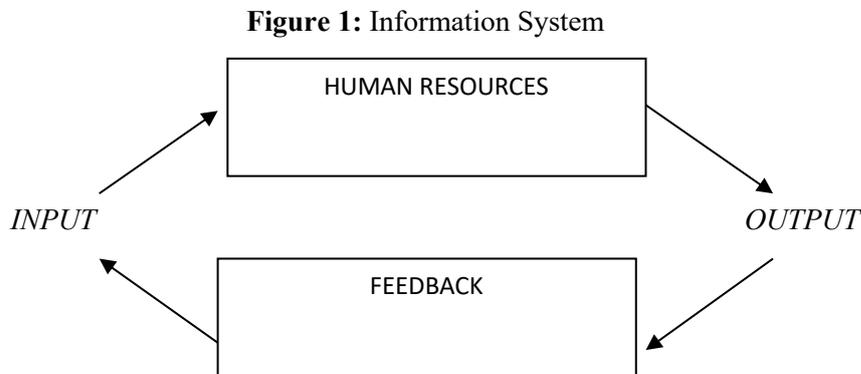
1. their daily computer support, and
2. the gradual operational integration of the existing Information Systems (e-School, e-DataCenter, Survey, OPSYD, etc.) in a modern unified information environment, replacing the operation of all the aforementioned Information Systems except PS Publications, which operates in parallel and is interconnected with it drawing from it the necessary data for its operation. As “*myschool*” on the one hand replaced, on the other hand it was the evolution of the previous Information Systems and mainly the recording system “Survey”, the entire legal framework that applied to “Survey” remained in force and was applied to the new “*myschool*” Information System. The same was valid for all the relevant circulars issued, the joint ministerial decisions, etc.

With the circular of the Ministry of Education (171490 / Δ2 / 12-11-2013), the start of the productive operation of the new unified Information System of School Units and Administrative structures “*myschool*” was announced. This new environment, after its pilot operation, was fully implemented for productive operation on 8-1-2014 for all school units in the territory.

The Information System

An information system can be defined as a set of entities that collects, stores, analyzes data and disseminates information. The activities, with which the Information System carries out these, are (Pollalis & Vozikis, 2009):

1. The input: Primary data is collected inside the company or outside it, from its external environment.
2. Processing: The primary input data is converted to a more comprehensible format.
3. The output: The processed information is exported to people or activities.
4. Feedback: It is an output that returns processed information to the appropriate members of the organization, to help them evaluate or correct the input phase (Greenfield, 1987).



Thus, an Information System is a set of elements that interact with each other (Kroenke, 2015: 10) supporting control in an organization, helping the executives and staff of a company in the analysis of problems, in the depiction of complex issues and in the creation of new products (Pollalis and Vozikis, 2009: 31). The term is also sometimes used as a reference to software used to operate a computerized database or to refer only to a computer system (Saitis, 2005).

According to them (Jessup & Valacich, 2008: 416), Information Systems is an academic study of systems with specific reference to the information and complementary hardware and software networks used by humans and organizations for collecting, filtering, processing, creating and distributing data. Particular emphasis is placed on an information system that has a finite limit, users, processors, storage, inputs, outputs, and the aforementioned communication networks (Bell, 1980).

Aims and objectives of an Information System

For the better functioning of an organization, important factors are both its effective organization and the information available to it. It is properly managed when all the Information Systems at its disposal are used (Papanau, Z. 1995). But in order for their use to be effective, a necessary condition is the understanding of the whole system of the organism which is formed by the people, the technology used and the available information (Kanellopoulos, 1990: 43).

Also, for the proper functioning of an organization, the existence of one or more types of Information Systems help to achieve the goals it has set. If there is more than one Information Systems in an organization, they are usually interrelated and draw information from each other (Everard, B. & Morris, G. 1999).

In this way, the organization is provided with the information that is necessary for the immediate and valid decision-making (Giannakopoulos & Papoutsis, 2003: 19).

Papastathopoulos (2009) states that the basic function of an Information System is the transformation of the data present in the physical production system into information (data) required by the activities of the decision-making system and vice versa, i.e. it transforms the data (instructions) that the management system produces in appropriate information (data) for the physical production system. Its basic functions are derived from this, which are the following (Hatzipanagiotou, 2003):

- The identification and coverage of users' information needs,
- The selection of relevant data from the wide variety of data inside and outside the business environment,
- The Creating information from selected data using appropriate tools, and
- The transfer of the generated information to the users (Psani, & Kambouris, 2016).

Myschool in School Units

Myschool is an online Information System aimed at the computer support of school units and administrative structures of education. It is used for the organization and administration of a school unit carrying out all its tasks, as well as for the control by the regional structures and the Ministry of Education. The basic services it offers are (Michopoulos, 2002):

- Central database that automatically accepts the data entered by the school units.
- Secretarial support of the Kindergartens, Primary Schools, Gymnasiums, Lyceums and Vocational Lyceums of the country.
- Access to specific data of the central database by the Prefectural and Regional Directorates of Education, for their monitoring and further utilization.
- Support for the conduct of the Panhellenic Examinations through the electronic registration of the preferences of the candidates and the support of the scoring centers.
- 24 hours a day operation, offering its services from any computer that has access to the internet, to any user who has a connection account with the corresponding rights (Makrakis, 1997).

Users include:

- The Ministry of Education: It has full control of all its institutions.
- The Regional Directorates of Education: They have full access to the data of the Directorates of Education that belong to them.
- The Directorates of Education: They manage the data of the bodies that belong to their area of responsibility, such as the school units and the teachers. It has full access and control over the general and other data of the bodies that belong to their area of responsibility, as well as the service data of the employees who serve them. In these bodies, students and assignments have only the right to supervise.
- The School Units of Primary and Secondary Education: They can only manage the data of their school, such as the general data, their building infrastructure, their teaching staff and their students (Andreou, A. & Papakonstantinou, P. 1994).

All school units have a main login account in the name of the school unit, while the responsibility for the management and use of “*myschool*” lies with its Principal, who is determined by a permanent ministerial decision (Raptis, N. & Vitsilaki, Chr. 2007). In addition, the responsibility for its use in the school unit is determined by a decision of the teachers' association of the school unit and to any of the other teachers of all specialties.

Research methodology

The purpose of this research is to record the views of teachers serving in the schools of Secondary Education (Gymnasiums, Lyceums and Vocational Lyceums) regarding the usability, friendliness and functionality of the Management Information System (MIS) “*myschool*” in relation to gender in the administrative operation of Secondary Education schools in Greece.

To achieve this goal, four (4) objectives are explored:

1. To determine the degree of use of “*myschool*” and the type of administrative work performed with its help in schools to serve their administrative functions.
2. To record the views of school teachers from both sexes who have the responsibility of using “*myschool*”, regarding the role and contribution of the “*Myschool*” Management Information System in the effective execution of the administrative work of the school units.

3. To explore those features that could be added to “myschool” to make it even more user-friendly and functional for both men and women.
4. To record the views of the teachers who handle “myschool”, about the weaknesses of the system that occur during its operation and suggestions on how they could be solved (Gray, 1985), (Pasiardis, P & Pasiardi, G.1993) .

Research questions

The research questions asked to investigate the objectives of this research are as follows:

- For what reasons and how often do authorized school teachers use “myschool”?
- To what extent does “myschool” contribute to the more efficient execution of the administrative work of the school units?
- How could the efficiency and usefulness of “myschool” be increased in relation to gender?
- What are the most common problems that “myschool” has during its operation?
- How do “myschool” users try to resolve any issues that arise while using it?
- Is it used more by men or women?

According to the theory, depending on what each researcher wants to study, he uses the appropriate method to extract the most correct results for the research he conducts. There are two methods by which empirical research can be carried out. The "quantitative" method, which is based mainly on the statistical analysis of the data collected through the questionnaire process, and the "qualitative" method, which is deepened through interview, observation or discussion. In the present research, the quantitative method was selected as the most appropriate using questionnaires as, according to its characteristics (Creswell, 2011):

- specific and small-scale questions are asked,
- data are collected that can be quantified,
- the data are analyzed using statistics,
- the research is conducted in an impartial and objective manner, as it is best served.

The research tool

The use of questionnaires was chosen, as it was judged as a particularly useful and effective method of collecting information of quantitative research to record opinions through the advantages they present, such as the fast and economical way of collecting information, the easy and fast distribution to a large number of users, the large collection of data, while drawing conclusions is much easier than other methods ensuring the anonymity of the respondent at the same time (Kouveli, 1984). Of course, they also have disadvantages, such as their inflexibility, as the questions are impossible to change, while the conclusions are drawn through the subjective point of view of the users. Close-ended questions are offered for statistical analysis and crawling, they can cover a wide range of points of view, are short and usually understandable and they give easy coding answers (Davies, 1981).

In order to ensure, as much as possible, the validity and reliability of the survey data, the questionnaire was designed in such a way as to include close-ended questions, as such questions are the most suitable for statistical analysis, because they can cover a wide range of views, they are short and understandable. Thus, the answers given can be easily coded (Paraskevopoulos, I.N. 1993).

Also, during the submission of the questionnaires, the participating teachers of the research were given clear instructions, the optional nature of their participation was emphasized and at the same time the anonymity of the declared data, in order to ensure the rules of research ethics (Hoyle, 1986). Therefore, in accordance with the above, it is concluded that the sample is homogeneous and representative and thus the results of the research can be judged as valid and reliable.

According to Creswell (2011), the target population of a research is a group of individuals with some

common characteristics that a researcher wants to study. The target population of this empirical research was the authorized users of “*myschool*” in the secondary schools of the country (Saitis, 2008).

According to Robson (2010), a sample of a research is defined as a subgroup of the target population, which a researcher plans to study in order to generalize to the entire target population. The size of the sample is very important, as it affects the significance of the research results and their generalizability (Dimitropoulos, 1999). In our research, the sample consists of fifty (50) teachers who were authorized to use “*myschool*” in the schools of Secondary Education (Gymnasiums - Lyceums – Vocational Lyceums) of the Prefecture of Serres and answered the questionnaire that was delivered to them. This type of sampling does not allow the survey results to be generalized to the entire target population (Creswell, 2011). But we are given the opportunity to extract useful information on the subject we are researching.

Research process

In order to achieve the purpose of this research, the views of the secondary school teachers who used “*myschool*” were necessary, so the first step that had to be made was to obtain the required license to conduct the research in the selected schools (Gymnasiums - Lyceums). In order to ensure this, we had a meeting with the Directors of Gymnasiums, Lyceums and Vocational Lyceums who participated in the research.

In an atmosphere of understanding, good mood and willingness, the required oral permission was provided for its conduct (Saitis, 2007).

Then the effort was made for the personal delivery of the questionnaire to the teachers who had the responsibility of using “*myschool*” in the Secondary Education schools of the Prefecture of Serres that participated in the research. The on-site distribution of the questionnaire was deemed necessary, because in this way we ensured personal contact and interaction with the participants, which resulted in their consent and response to the research questions.

It was also easier to clarify some issues related to the research, such as its purpose and personal commitment to confidentiality with regard to the anonymity of the participants and the protection of their personal data. In addition, personal contact made it possible to answer any questions. The survey was conducted from October 20, 2019 to February 15, 2020.

Research results

According to Paraskevopoulos (1993), from an empirical quantitative research, in order to draw conclusions it is necessary to codify the data and present the data in detailed tables with percentages and charts. That is why in the present research descriptive techniques were used for the statistical analysis in which tables that emerged after the processing of the data of the completed questionnaires were used. For visual representation, in order to make the results of the analysis and processing more understandable, pie and column diagrams were used.

The results from the elaboration of the fifty (50) questionnaires of the empirical research correspond to the sections that the questionnaire is divided into. The first section contains general information of the teachers who answered the questionnaire, such as demographics, information related to the status of work, experience in the use of Computers (training in Information and Communication Technologies) as well as the experience of using “*myschool*” or other Management Information Systems. The remaining sections record the analysis of the results of the questionnaire with each section corresponding to one of the five research objectives set by the research (Lainas, 2000).

Conclusions – Suggestions

The use of Information Systems in the administration of a school unit shows the need for more efficient and functional data management. In order to serve such emerging and daily needs, the Ministry of Education, in recent years, has commissioned private software companies to design them. These were based on the requirements of a school administration and each time created a different Information System, which is replaced by a new, more complete one. The last one that has been created and that is more complete than the previous ones is the “myschool” Information System (Kanellopoulos, 1990).

In order to verify his contribution to the administrative operation of secondary schools in Greece, a survey was conducted in secondary schools in the Prefecture of Serres. Of course, it should be noted that this sample is limited and, therefore, it is not possible to generalize the results in all schools in Greece. The analysis of the results showed that:

- The largest percentage of 64.3% agree that the use of “myschool” is easy, pleasant, friendly and functional and its general operation was considered very satisfactory. Especially the percentage of women who think that the use of myschool is easy and pleasant reaches 47.9% and 16.4% completely agree. Therefore, the largest percentage of 64.3% agrees. There is a percentage of 26% who did not express an opinion, while only 9.6% disagreed.
- Also women find it difficult to use “myschool” during its operation, 42% did not express an opinion, 20.3% disagreed and 11.6% completely disagreed. Therefore 31.9% disagreed from very much to absolutely. Also, 15.9% agreed while 10.1% completely agreed. Therefore 26% agreed from very much to absolutely.
- Men do not face problems and difficulties during the operation of “myschool”, 31.9% agreed and 10.1% completely agreed. Therefore, 42% expressed a positive attitude, but 47.8% did not take a position on the issue, while 10.1% expressed a negative attitude.
- If women are concerned about taking over “Myschool” as an extracurricular activity, it was found that 40.6% did not take a position on the issue. Also, 33.3% agreed and 15.9% completely agreed. Therefore 49.2% agreed. But there is also a percentage of 10.1% who disagreed.
- Both sexes consider the general operation of “myschool” to be friendly and functional. It was found that 55.1% agreed, as well as 20.3% completely agreed. Therefore 75.4% agreed. But here too there is a percentage of 21.7% that was not placed on the subject. Also, 2.9% disagreed.
- Finally, further research is needed on the use and operation of “myschool” in relation to the objective difficulties of both sexes.

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