R&E-SOURCE https://journal.ph-noe.ac.at
Online Journal for Research and Education
Special Issue 18, June 2020, ISSN 2313-1640

INFLUENCE OF EDUCATIONAL QUALITY ON THE LEVEL OF INFORMATION LITERACY

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Abstract

The goal of this work is to demonstrate the importance of information and communication technologies in the process of education as one of the most important tools enhancing the quality of tuition. The aim of education will shift to improve the skill of learning, critical thinking of the learner, improve the ability to communicate and work with information and communication technologies as well as gathering, analyzing and using information effectively and efficiently. Information literacy competency extends learning beyond formal classroom settings. Different forms of media and electronic sources of information will gain broader space.

Keywords:
Educational quality
Information literacy
Information society

1 Introduction

Nowadays quality has a dominant feature in every aspects of life. After joining the European Union, quality should be based on needs and requirements of the European Union regarding quality assurance.
The primary purpose of each school should be recognized by the customers' expectations and requests on the basis of an accurate data, not just on the basis of teachers´ experience and intuition. It needs a regular feedback (students' attitude toward learning, school, assessment of students´ talent and ability). One way to increase the quality of education is to develop the system of quality management at secondary schools according to ISO 9000 NORMA and TQM philosophy. Emphasis should be placed on the quality of educational process, so that students after completing their studies would be prepared and meet the requirements of their future employers' expectations.

2 Standards

In the most of countries in the world there is a national trend to create the requirements on the work results of schools, so-called Standards, that are regularly monitored. The most of products are required to meet a predetermined standard, norm whereby meeting of the requirements are strictly controlled. However, it has not been provided in educational system. Nobody has basically guaranteed that the graduate has mastered the required knowledge, skills, attitudes and etc. The idea of Standards in education has begun to promote during the last few decades according to the example of the industry (Albert, 2001).

The term of Standard means the degree of perfection required for a particular purpose or accepted or approved model (pattern, standard, rate) by which are real objects and processes of the same category being compared or measured. The Standards are therefore required and binding characteristics of quantitative or qualitative properties of a particular object or phenomenon.

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Nowadays, multiple kinds of standards are currently discussed in the educational system. For example, the pedagogical literature distinguishes these types of standards in the United States (National Standards for Civics and Government. Draft for Review and Comment. Center for Civic Education. Calabas 1994):

Students' Standards: have dual form: content and performance.

Content Standards are requirements that state what students should know or can do.

The content and scope of the different subjects are defined by the curriculum. The subject matter is represented mainly by appointing of the knowledge to be made available to students. In the context of rapid scientific and technological development an explosion of information has begun thus resulting in an overdimension of the curriculum. The overdimension can also be caused by the fact that allocated time for the teaching of certain subjects is reduced whereby the curriculum content remains essentially unchanged. Only way to remove overdimension of school curriculum is to exempt the school from the effort to pass the maximum amount of information, i.e. to determine basic subject matter.

Performance Standards are detailed elaboration of the Content Standards and contain the level of achievement that is expected of them. There are three levels of achievement standards: basic, intermediate and advanced. They are also called target standard.

Teachers' Standards: They essentially contain the detailed qualification requirements for teachers in order to help students to accomplish the performance standards.

Schools' Standards: They include criteria for schools. Their fulfillment is to ensure all students an equal opportunity to achieve the content and performance standards.

State and Local School Authorities' Standards: They contain criteria to assess the success of the state and local school authorities in fulfilling their mission in education.

Performance and Content standards form the Educational Standards. Each Content Standard should be determined by elaborated Performance Standards and vice versa. Both standards correspond to each other.

Evaluation Standards: They are an essential building block in the development of educational programs. Evaluation Standards define the set of criterias, organizational and methodological procedures for verifying the achievement of learning outcomes or professional competences. In relation to the acquisition of qualifications they must be based on qualification standards.

Evaluation standard includes:

a) evaluation criteria for each general and professional competence. They determine how to establish the evidence that learning has been completed and demonstrated for the required competence. They must be linked to learning outcomes. Since the competences determine what a person has to know and perform within a given qualification or employment, the criteria determine according to what we know whether these competencies are actually acquired. The criteria must be specific, clear, objective and relevant in relation to the particular competence. They must relate to only one competence.

b) the means and methods of evaluation - defining ways and means of verification of particular competences

c) organizational and methodical guidelines - for the course of tests. These are the different rules and regulations for final exams and school leaving examination that are part of the valid legislation.

2.1 Information literacy standards of future teacher

Information technologies are key elements in building the modern society based on knowledge. Information competences are mainly information literacy and computer literacy.

Information literacy may be explicitly defined as the ability to locate, evaluate and use information in a way that makes a person an independent, lifelong learning individual; as the ability to locate, evaluate, use and communicate information in various forms, such as the integration of written, computer, media and technological literacy, ethics, critical thinking and communication skills.

Computer literacy may be viewed as the ability to address problems, which means to educate and expand the following skills:

- distinguish essential phenomena from non-essential,
- navigate in information and evaluate them,
- provide necessary information,
- choose (evaluate) and use appropriate methods, concatenate or combine various methods to solve problems, or adapt or propose a new method, which solves a professional problem,
- express facts and their phenomena mathematically,

- carry out calculations,
- use outcomes – solve a problem.

Such worded computer literacy, or information literacy is not the content of only a chosen group of subjects, which contain the expressions "computer technology and information technology" in their names, but all the subjects as a whole, the problems of which will be solved, while apart from the mechanics of using computers, the emphasis is on the thinking process, evaluation, decision, optimizing and realization.
The model of securing IT competences – future teachers will have compiled a lesson plan on the basis of test results – as recommendation which modules they should attend, and identify them task to be carried out independently. Test results also determine which thematic areas (teaching units) how many times repeat. The student (future teacher) based on requirements and self-awareness may develop his own, individual study plan. If s/he does not accept this responsibility, the teacher – based on the outcomes of the entry tests – can propose an optimal study plan, which the student can, but does not necessarily have to respect. The tasks are defined in a way that prepares the learner to successfully.

Undermentioned set of standards was elaborated by IVIG - Expert committee on information literacy and output information literacy at universities. ,,These standards defining knowledge, skills and abilities of information literate students or teachers relate only to study and professional work in the field. In this sense, information literate graduates of grammar school or future teachers:
• are able to understand specialized texts of their field of study, to abstract from any essential thoughts and to write professional texts themselves using knowledge of information sources that are quoted with respect to copyright law and to the principles of creation of bibliographic quotation
• know and monitor key information sources of their field of study based on advanced search methods and with respect to the legal and moral aspects of this activity they are able to obtain relevant information and thus obtained data of different types and formats they can manage and store for further use in their professional work
• can use sources of numerical and technical information, search and process numerical and technical data and use them in their professional work.
• can master the native language and can verbally and in writing express their own ideas, know and use the terminology of mother and a foreign language, especially English, at the level necessary to work with professional information sources and communication within the field community
• can use available information and communication technologies needed for searching, processing and presentation of information (of various type and format), relating to his studies and professional work. (Professional committee IVIG Association of Libraries of Czech Universities, 2004)

3 QUALITY OF THE EDUCATIONAL PROCESS

The concept of TQM, however it is based on production, is also applicable in the field of education, and it only requires a certain degree of adaptation. Among the most common management systems of quality management in Europe are ISO 9000, but the possibility of application of ISO 9000 in education is limited, as they have been developed for manufacturing processes in electronics and engineering. EFQM model is also applicable in terms of education, however in the model the emphasis is mainly on internal assessment of the organization. TQM is primarily a philosophy which aims to ensure quality. Quality models based on the philosophy of TQM are concentrated on man, the human resources as the main bearer of quality. [5].

Regarding TQM, the following four elements are the most important features of the quality of the educational process (Lundquist, 1998 Tribus, 1994):
- focus on customer satisfaction,
- focus on the learning process,
- continual improvement of the teaching process,
- create a suitable climate for teaching.

- **Focus on Customer Satisfaction**

The quality of teaching process is based mainly on the achievement of the goals of teaching, meeting the educational standards and requirements of other customers, particularly the achievement of satisfaction of students and their parents. At the beginning of the school year the teacher should find out through an anonymous questionnaire and interview, how and what students want to be taught: what methods, forms and material resources they prefer, what should be the relationship like between teacher and students from their point of view, what climate should be in the classroom, which topics of the curricula they are interested in the most, and so on. As often as possible during the school year (preferably at the end of each teaching unit) the teacher should give students a short questionnaire to complete for the assessment of the teaching unit. From time to time the teacher should have a short chat with students on „What do you suggest to improve the quality of teaching of my classes". Students should fill out an anonymous questionnaire for the assessment of teaching at least once each semester, which includes an assessment of personality of the teacher by students. [9].

- **Focus on the Teaching Process**

If unsatisfactory results of teaching are found first and then the correction is made, it is usually too late. It is much more effective to prevent shortcomings than to correct them additionally. Therefore, in TQM and also in other quality management systems to **focus on the quality of the teaching process** is advisable. Teachers should be familiar with the latest information, trends, innovations in pedagogy, psychology, methods of teaching of particular subjects and other scientific disciplines, and of course in content of subjects they teach and apply these innovations in teaching. This requires systematic and regular further training of teachers, their professional and career development. [9].

Teachers should have access to the latest information, thus they should ensure to have enough literature and magazines. It is necessary to remove oversized curriculum and determine what the basic curriculum is for subjects because less is usually more. It is necessary to respect the cross-curricular and interdisciplinary approach. [4] In the learning process it is necessary to apply humanistic approaches towards students, because humanistic education is based on trust in the abilities of the students, their self-realization and creativity.

- **Continual Improvement of the Educational Process**

In order to improve the teaching process teachers should constantly think, analyze and evaluate their own work and try to improve it. An essential part of their work should be a systematic approach called PDCA cycle.

The aim of the continual improvement of certain steps and activities is a good and reliable process, because if all the steps and activities are carried out properly, then it is assumed that the entire process will meet the expectations of customers. If a service (eg. learning process) does not meet the expectations of partners, despite well-performed steps and activities, then there is nothing else left but to schedule a new process [1].

An essential part of the teacher's work should be a systematic approach called PDCA cycle (Lundquist, 1998). This cycle consists of four stages:

1. **Planning:** activities which are focused on the qualification of learning (planning process in verification and implementation some innovations, even is small).
2. **Realization** plan for learning
3. **Evaluation** activities with adequate method and techniques
4. **Analyses** reflection, evaluation of the results reflected in the new plan. [8].

Important for PDCA cycle is that innovation, which has proven, it becomes a normal part of the course (standard procedure) and tested a new innovation.

- **Creating favorable climate in teaching**

The climate in the class is most often thought atmosphere and mood that prevails in the classroom. According to Albert in terms of content the classroom climate includes continual observation, empathy process, where all of the participants such as students, teacher respond to everything what happens in the classroom. According to Zelinová (2002) the concept of climate means typical human relationship, the modes of interrelated communication, that influence participants` feelings and intuitions.

The classroom climate significantly influences students´ motivation. In successful schools, teachers are interested in their own subjects. The climate is demanding which means that the teachers require the best

from their students and they are able to achieve that. Students are largely taught that way as their teachers think this is the way they will learn (Pygmalion effect). It is important that the teacher creates conditions to raise motivation (with the help of suitable curricula and teaching tools).

In learning process teachers should create an environment in which students would not be scared, nervous, bored. They should allow the student to experience success, support and develop their personality, have expectations which meet the students´ individual abilities.

According to J. Průchy climate in the classroom is influenced by:

- Communication and teaching methods
- Students´ participation in the classroom,
- Preferential attitudes and teachers´ expectations towards students,
- Climate of the school. [6] .

To improve the climate in the classroom Albert suggests focusing on three areas of teaching . They are:

1, Improving relationship between pupils - trying to increase the feeling of being part of the same team, organizing events in and out of school, including situations in the teaching process, where students work more together rather than compete, making use of pair work, group work and multiple teaching work, preparing some tasks, which can be solved in groups, helping pupils to resolve the interpersonal conflicts, eliminate bullying, aggression and humiliation.

2, Increase students´ interest in teaching - make teaching more interesting, insert tasks, which show practical use of the curriculum, motivate students to do some work outside the class, establish contacts with other people, help students´ competences and increase the need of self-determination, self-realization.

3, Keep order and calm in the classroom, teaching process can be fun, but it is necessary to prevent intentional interference. [2].

4 The concept of the information society

Information society from the point of view of an ordinary person is a society where the work with information is an everyday activity. Some different information and communication technologies (ICT) are used to work with information that means the methods, procedures and means such as computer, electronic diary, mobile phone and so on.

From a social point of view, information society is a society in which informatics and information and communication technologies are becoming an economic force, identifying and transforming the entire social system and acting as a means of creating new social, supraclass and and supranational structures fundamentally altering the mechanisms of social development.

Challenges of the information society and further directions of development have been the subject of a number of papers at international and national level. The following ones have an important role within the frame of documents of national character:

- Policy of Informatizing Society in the Slovak Republic for the years 2002 - 2005 with a view to 2010.
- National Action Programme of Society Informatization
- Millennium - National Programme of Education in the Slovak Republic for the next 15 to 20 years (10-13).

The main benefits of the information society are:

- making available the usage of information sources and their tools by the general public,
- expansion and improvement of means of services and entertainment,
- promotion of education,
- new opportunities for the application of human creative abilities, as well as the employing of handicaped people in life through "teleworking"
- increasing of cultural traditions and identity of regions,
- more efficient state administration,
- more effective management of enterprises, improving of competitiveness, facilitating of connection between the manufacturer, service provider and the customers themselves,
- new services in the telecommunications and new markets in field of software,
- more effective health care.

Information Society was firstly taught at the Janos Selye University in winter semester of the academic year 2017/2018. Since the subject of Information Society was not included in the accredited programs, the content of the course was divided into several subjects. The most of the topics was included in the basic subject of Information and Communication Technologies, taught in the first years of education at the Faculty of Economics of the Janos Selye University. Part of topics appears in the continuing subject of Information and Communication Technologies II. The subject of Informatics is taught only one semester at the Faculty of Economics so only four moduls of Information Society are taught by means of presentations. Individual modules were evaluated on the basis of tests which had to be passed by all the students as the procedure within the exam. Tests were carried out in the Moodle environment where the teacher could exactly evaluate the different parts and process the percentage of success. Thematic unit on e-learning has found its place in the subject Didactics of Informatics, which is an organic part of the Master Teacher Training program. Thematic unit on legal standards of information society forms a part of the subject called Law and Ethics s in the Use of Information and Communication Technologies.

5 Conclusion

The connection of new information and communication technologies (ICT) with all areas of the economy and social life is changing our society of "information society based on knowledge". The amount of knowledge which mankind has available is growing at tremendous speeds. The more information is available to mankind, the more important it is to be able to search, select, sort, process and use the information. To learn to work with information primarily means to be able to find exactly one that is just necessary and to assess its relevance.

Schools must keep pace with the rapid advancement of technology, research and social changes. They must adopt a new form of education based on the research results of how people learn and of the effective usage of technology and skills for the 21st century.

It is necessary for everyone to know what processes are occurring in a given society and what events are taking place in it, so everyone was ready for the changes that the development brings to be able to control and utilize new technologies and new opportunities. Knowing the society in which we live is important not only for future teachers, who will bring up and educate a new generation to be prepared for life in the information society, but also for economists and managers who will manage this company.

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