Modern Teaching Methods for Economics Subjects

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Abstract

The article examines modern methods of teaching economics subjects through the use of information and communication technology (ICT), highlighting both the advantages and disadvantages compared to conventional forms of education. The primary objective is to provide a comprehensive evaluation of the practical applicability and extent of modern, active teaching methods in economics education. From one perspective, these methods facilitate the rationalization of the teacher's workload, reduce repetitive tasks, and enhance pupil engagement and participation. On the other hand, the reception of these methods by pupils remains a key consideration. The advantages of ICT include flexibility and convenience, as well as the opportunity for pupils to learn either in school or in the comfort of their homes. The article further describes modern, active teaching methods in detail, including procedures and examples of their application in the educational process at management-focused secondary vocational schools.

Keywords: Information Technology, Communication Technology, Interaction, Survey

1 Introduction

In the introductory section, it is essential to consider the current aspects of teaching processes, specifically comparing conventional and innovative, modern approaches to education. In recent years, teaching has received significant attention from society, with critical opinions often outweighing praise for how education is conducted in schools. In reality, both teaching practices and their outcomes remain inadequate. The prevailing opinions on

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education are those that argue there is insufficient innovation and modernization in the teaching process. However, the authors of this paper do not align with these views. Instead, they support the perspective that more innovation is needed in schools.
In seeking the causes, it is crucial to address the following questions: How should the teaching process be conducted? What should its goals be? What should it focus on?
These questions can be answered through three different approaches, based on the opinions held:
1. The first approach emphasizes the development of students from within, rather than under external pressure. Their needs should be addressed, and they should not be compelled to adopt adult-like roles. Their spontaneity should be nurtured, and they should not be forced to engage in activities dictated by rigid methodologies. Instead of solely focusing on the prescribed curriculum, emphasis should be placed on developing their personal experiences. Discipline should be maintained through engaging activities, rather than through coercion.

2. In the second approach, pupils' individual personalities should be explored and recognised, with their active engagement encouraged through an understanding of their interests. Teaching should capture the pupils' attention, and the classroom should be structured in such a way that pupils perceive it as their community. Pupils' creativity should be fostered, and their unique personal traits should be respected.

3. The third approach should focus on connecting the school with real-life experiences, fostering the active development of pupils' knowledge through their personal experiences, activities, and even their mistakes. The teaching process should support the growth of creativity, critical thinking, and other social skills. The curriculum should consist of meaningful content, supported by effective methods, forms, and resources, as well as a positive school atmosphere. Customised approaches should be central, tailored to the pupils' individual potential and educational needs.

Professional literature offers a wide range of perspectives on conventional teaching. It is an approach where the teacher is more active than the pupils, with pupils primarily listening as the teacher explains the material and following the teacher's instructions. Despite the growing recognition among teachers of the need to adopt alternative approaches, many still struggle to move away from traditional teaching methods and make the teaching process more effective.
Terms such as innovative approaches, innovative teaching, and innovative pedagogy have yet to be clearly defined. Innovative approaches highlight the need for transformation within the education system, with 'innovation' serving as an umbrella term for various changes in education. The key question, therefore, is: "What constitutes modern, innovative education?" Modern education puts pupils in the centre of attention. It means that pupils’ personalities should be considered valuable as they do not exist in a vacuum, but in a space from which

they acquire their knowledge, which affects their emotions, and in which pupils exist as naturally active individuals. The educational process provides them with an opportunity of personal fulfilment and use of their potential – the reality of respect and development of 'sui generis'. Very important is also collaboration among pupils, practically manifested in various forms, in particular collective cooperation, for example when solving projects.

To be innovative and active means to be always ready to engage in something new, try what has not yet been established, examine new methods, work with new technologies, ICT, etc. Innovations are not intended for teachers only, but also for pupils. Pupils should be allowed to express their ideas and actively communicate with their teachers and classmates. They also should be allowed to transpose the reality of this world into the curriculum.

The recent pandemic has brought a transition from the in-class form of study to the remote form, including the use of online teaching; this gave rise to multiple new stimuli that contribute to the development of digital literacy not only of teachers, but also students. However, online teaching has certain negative consequences, mainly in the social and interpersonal fields. The purpose of using ICT (Information and Communication Technology) in remote education is to give all pupils a chance to learn how to use ICT to support their own learning, even though the pandemic is probably over. Pupils can only be able to use ICT in the learning process if the suitable ICT is available to them when they need it, while the ICT must correspond to the purpose of satisfying their individual educational needs. The ICT that is appropriate for that purpose includes not only the technologies available to pupils, it also covers the ICT support they receive when using the ICT, while such support should meet their individual needs to the maximum possible extent.

All pupils, including those who are disabled or have special educational needs, need support from their teachers and other experts in order to achieve progress from the obsolete methods of work with ICT and become self-confident users of ICT to support their own learning. In order to achieve that, pupils must gradually develop they ICT skills.

2 Material and Methods

It is essential that teachers apply structured procedures of assessing the ICT-related needs in order to identify the practical needs of their individual pupils related to concrete ICT tools. That will enable pupils to learn how to assess and manage their own approaches to ICT and their preferences as to assistive technologies. ICT may only serve as an efficient tool for individualised learning if teachers clearly understand the ICT potential in terms supporting the 'learning to learn' strategies (meta learning) and active approach to education (pages 22–24 of 'ICT in Inclusive Education' – a European Agency for Special Needs and Inclusive Education document).

In this regard, it is necessary to focus on a particular teaching process and apply modern teaching methods. In this article, modern techniques of teaching economics subjects are discussed with the aim of formulating concrete proposals how to increase the efficiency and

innovate the process of teaching Economics in the School of Business study branch, based on a questionnaire survey.

3 Information and communication technology in practice (a case study)

The evaluation of answers to the questions contained in the questionnaire is presented in tables below. For the sake of clarity, two tables were compiled – for Year 1 and for Year 2. Genders were categorised as female (F) and male (M). The tables are presented in a comprehensible form of a coordinate system, while the individual questions are assigned values indicating the number of answers chosen from the available options.

Answer		3	4	5	6	7	8	9	10	12	13	14	16
Yes	F	6	8	4	7	3	0	6	6	7	9	2	4
	M	1	3	1	3	0	1	4	2	3	7	0	0
Mostly yes	F	1	2	1	3	1	1	3	2	2	1	4	0
	M	2	3	0	2	1	0	0	2	3	1	2	1
No	F	2	1	2	0	4	8	0	0	0	0	4	3
	M	0	0	2	0	2	4	0	1	1	0	4	1
Mostly no	F	3	0	2	0	1	2	1	0	0	0	1	1
	M	2	1	3	1	1	2	1	0	1	0	1	4
I do not know	F	1	2	4	3	4	2	3	5	4	3	2	5
	M	3	1	2	2	4	1	3	3	0	0	1	2

Table 1: Questionnaire survey – results of Year 1, 21 students.

Answer		3	4	5	6	7	8	9	10	12	13	14	16
Yes	F	4	2	2	2	6	0	4	7	9	11	2	6
	M	3	0	2	4	2	2	4	1	6	7	0	3
Mostly yes	F	4	3	5	2	2	2	1	0	5	2	2	4
	M	2	3	0	2	0	2	0	2	2	3	0	3
No	F	1	0	2	2	2	6	2	3	0	0	5	2
	M	0	2	2	0	1	0	1	2	1	0	5	0
Mostly no	F	1	6	0	2	4	2	2	0	0	1	2	0
	M	1	2	0	0	6	2	0	1	0	0	2	2
I do not know	F	4	3	5	6	0	4	5	4	0	0	3	2
	M	4	3	6	4	1	4	5	4	1	0	3	2

Table 2: Questionnaire survey – results of Year 2, 24 students.

Based on the answers provided to the individual questions, the following conclusions were made:

Questions 1 and 2: about age and gender.

The initial questions related to the gender and the year of study at the school attended by the respondents. There were 45 respondents – 27 girls and 18 boys; the survey group therefore consisted of 60% of girls and 40% of boys. In Year 1, there were 21 respondents – 13 girls and 8 boys, while the remaining 24 respondents were students of Year 2, in particular 14 girls and 10 boys.

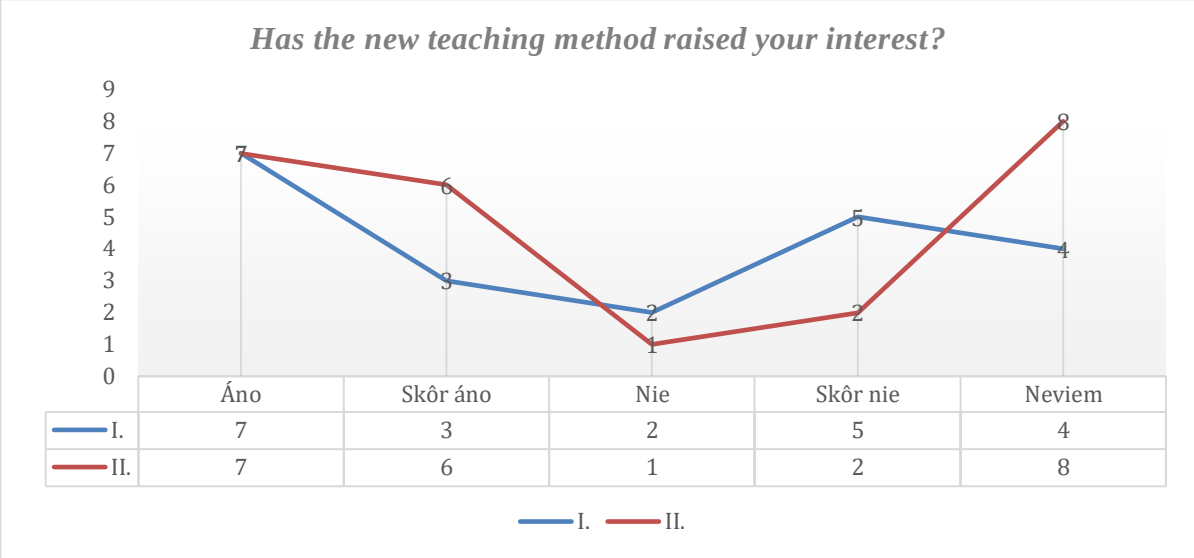
Question 3: Has the new teaching method raised your interest?

Year	Gender	Yes	Mostly yes	No	Mostly no	I do not know	TOTAL
I.	F	6	1	2	3	1	13
	M	1	2	0	2	3	8
	TOTAL	7	3	2	5	4	21
II.	F	4	4	1	1	4	14
	M	3	2	0	1	4	10
	TOTAL	7	6	1	2	8	24
TOTAL	%	31.11%	20.00%	6.67%	15.56%	26.67%	100.00%

Table 3: Interest in the newly introduced method.

Pupils expressed their interest in that form of education. The results of the answers provided are shown in the table below, showing that 31.11% of pupils answered 'Yes' and 20% answered 'Mostly yes', while a total of 51.11% of pupils showed their positive attitude towards the introduction of the new teaching method. Negative answers 'No' or 'Mostly no' were provided by 22.23% of respondents, while 26.67% of pupils were not able to provide their opinion.

The graph below provides a more concise representation of the results; it shows the answers provided, while Year 1 results are in blue and Year 2 results are in red.



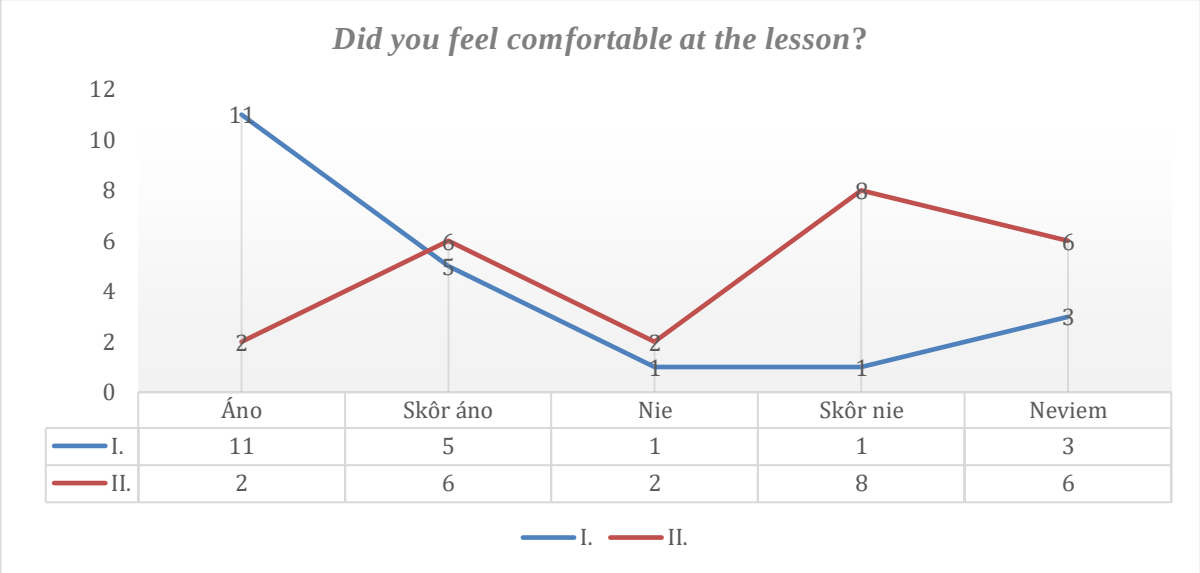
Graph 1: Results of the newly introduced method.

Question 4: Did you feel comfortable at the lesson?

Year	Gender	Yes	Mostly yes	No	Mostly no	I do not know	TOTAL
I.	F	8	2	1	0	2	13
	M	3	3	0	1	1	8
	TOTAL	11	5	1	1	3	21
II.	F	2	3	0	6	3	14
	M	0	3	2	2	3	10
	TOTAL	2	6	2	8	6	24
TOTAL	%	28.89%	24.44%	6.67%	20.00%	20.00%	100.00%

Table 4: Feeling of being comfortable at the lesson.

Pupils from both years provided positive responses, with 53.33% selecting 'Yes' or 'Mostly yes.' In contrast, 6.67% chose 'No' or 'Mostly no,' while 40% selected 'I do not know' of the total number of participants.



Graph 2: Feeling of being comfortable.

Question 5: Was your activity higher than with the previous style of teaching?

Year	Gender	Yes	Mostly yes	No	Mostly no	I do not know	TOTAL
I.	F	4	1	2	2	4	13
	M	1	0	2	3	2	8
	TOTAL	5	1	4	5	6	21
II.	F	2	5	2	0	5	14
	M	2	0	2	0	6	10
	TOTAL	4	5	4	0	11	24
TOTAL	%	20.00%	13.33%	17.78%	11.11%	37.78%	100.00%

Table 5: Higher activity at the lesson.

The results of the assessment of pupils' activities at the lesson that was taught while applying the new form of teaching, as observed in the questionnaire, were as follows. Answers 'Yes' and 'Mostly yes' were chosen by 33.33% of pupils, i.e. one third of the total number of participants. Options 'No' and 'Mostly no' were selected by 28.89%. Answer 'I do not know' was provided by as much as 37.77% of pupils. The figures above indicate that the answers and perceptions of the pupils were varied, while the highest proportion of them could not decide and eventually answered 'I do not know'.

The questionnaire contained 15 questions and answers provided by pupils; however, only some of them were selected due to a wide scope of the survey.

Evaluation:

In the late 20th century, information and communication technology (ICT) has brought an unbelievable progress in the teaching process; in particular, new technical possibilities and user options were launched for the purpose of sharing information and communication, overcoming the time barrier and spatial limitations. The current 21st century is therefore rightly referred to as the century of information technologies, and our society as the global information society.

New trends require that people are prepared for living in the new millennium – for the active and creative use of novel ICT aimed at increasing the quality of life of individuals, as well as prosperity of the entire society. The information society is associated with an increased availability of occupations that are based on providing services and information, and with the development of knowledge as the source of wealth and power. Economic growth and competitiveness of a country depends on the level of education of its inhabitants. It is therefore necessary to put education in the centre of attention – not only education of children and young people, but also the lifelong learning.

3.1 About the history of information and communication technology

ICT has been developing since the invention of a telephone by Alexander Graham Bell in 1875, which began the creation of a cable-based communication network. At the beginning, the network covered the American Region only, but it gradually extended into the Transatlantic Region, and eventually became a global communication means, covering almost the entire world.

In years 1910–1920, technologies based on a wireless communication network started to appear, manifested in the first AM radio broadcasting. This wireless voice communication further developed into the audiovisual communication – the television broadcasting, introduced in 1940. In 1943, the first electronic computer was invented, and since then increasingly used as an essential tool in the application of ICT all over the world.

The ICT abbreviation has become part of our everyday language. Not long ago, the IT (Information Technology) abbreviation was typically used, as stated in a paper by A. Halašková (2004, p. 128–129). However, with the launch of the latest communication technologies, such as the internet, mobile phones, communication satellites, the IT abbreviation was supplemented with letter C. ICT is an umbrella term for computational and communication tools, which are used to support, in multiple ways, studying and other educational activities, as well as information processing and sharing.

Fig. 1: Development of information and communication technology.

As also stated by A. Halašková, ICT includes:

- Traditional media, e.g. television, video projectors and radio
- Personal computers with the multimedia support
- Input and output equipment, tools for digitalisation, recording, control and measurement
- Internet and related services
- Integrated educational programmes (complex computer environments for learning)
- Technical tools for video conferences
- E-mail
- Electronic and programmable toys
- Automatic scanners, recorders, and devices for automatic data evaluation.

According to J. Kolejnička (1997, p. 21), ICT is a system of methods, programmes, procedures and activities aimed at the maximum potential utilisation of near and remote sources of information, kept on a wide range of information media, or the creation of such sources, through communication in computer networks, with a goal to find optimal solutions to the existing problems and determined tasks, or achieve one's intentions, or satisfy one's needs. Information technology (IT) is among the 12 pillars of the National Programme of Education and Training for the Next 15–20 Years, in particular in the Millenium project. The goal of the Millenium project, under the IT pillar, is to connect all schools to the internet and train all teachers in working with the internet.

3.2 Prerequisites for using ICT in education

According to V. Stoffova and L. Kis-Tóth (1998, p. 150), the most frequent prerequisites for using ICT in education include the following:

- Mastering work with the Windows operating system.
- Preparation of texts and tables in Word and Excel.
- Mastering work with the Internet and electronic mail.
- Presenting a school on the internet.
- Mastering work with scanners and printers.
- Use of multimedia CD in the teaching process.
- Application of ICT in teaching subjects.

According to E. Petlák (1997, p. 8), modernisation of education is not limited to changes in the methods and forms of education and the modification of the schools' structure and equipment; it also means changing the style of work with an emphasis on the development of creativity and independent work of students. Some of the options how to use ICT in a creative manner are listed by I. Turek (2002), for example the following:

- Search for values, data and information
- Making computations
- Revision of the curriculum; development of skills and habits
- Presentation of information and curriculum; modelling and simulation
- Control of the teaching and learning processes; learning through problem solving
- Diagnosis of students
- Programme teaching
- Project teaching, etc.

Other benefits of ICT may include, for example, the following:

- High degree of motivation
- Making accessible the situations that are difficult to access
- Exclusion of dangerous situations
- Simulation of long-lasting processes in a relatively short time
- Interactivity – students may directly interfere and change conditions
- Creativity development.

The information and communication technology increases the productivity and attractiveness of the learning process. As a result:

- Pupils ask more questions in such situations
- ICT makes the search for information easier
- Pupils have more courage to risk since ICT is flexible and offers the option of return
- Pupils use richer and more varied sources, and more media

- Pupils' motivation is higher since they can find the latest information in the ICT environment
- Pupils may design, construct and use systems for data control, collection and measurement
- Pupils communicate and collaborate to a greater extent.

In the current knowledgeable society, access to adequate ICT must be regarded as an issue related to human rights. At various political scenes – in the European Union, at the World Summit on the Information Society in the UN – ICT is regarded to be an integral part of many aspects of life of the citizens, while the emphasis is put on the importance of ICT as a tool for supporting more intensive social inclusion. When ICT is used efficiently, it facilitates the inclusive education in schools and across the whole education system, as well as the support of activities performed by schools as educational communities. The role of ICT is to increase the respect for diversity as a step towards providing education across entire communities.
Access to ICT, which supports the inclusion, requires having generally accessible, available, and affordable technologies. Another requirement is the access to adequately customised and accessible teaching materials that provide equal educational opportunities to all pupils. Digital exclusion is a complex issue that affects gaining experience in the field of education, as well as gaining broader social experience by people – and not only hose with disability or special educational needs. The access and support regarding the use of standard, as well as special assistive technologies, which reduce digital exclusion, requires taking a systematic approach to the policy making and the practical application, with the participation of all relevant stakeholders.

4 Conclusion

On 15 March 2017, the Ministry of Education, Science, Research and Sport published the National programme for the development of education titled 'Learning Slovakia', which represents the basis for a substantial reformation of the education system. The document was drawn up based on the theorems for regional and higher education, addressed by a team of experts. However, the transformation of the education system requires a transition from the directive educational strategy to the creative and humane strategy, focusing on the pupils' personalities and the overall development of their personalities. Unfortunately, the great reformation of the education system, in its current form, cannot be performed. Experts recommend revising it and only then the political support may be addressed.
A present, ICT represents an integral part of our lives. It affects many aspects of the society, including the education, professional training and employment rates. Its most important benefit is that it has become a valuable tool facilitating remote education during the pandemic not only for students, but also for the disabled and people with special educational needs. In this article, information and communication technology is discussed in terms of improving the

quality of life and reducing social exclusion – the issues of global importance, as well as social, economic and political barriers that may exist where ICT is inaccessible.

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