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***THE EFFECTIVENESS OF STUDYING OUTCOME
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THE EFFECTIVENESS OF STUDYING OUTCOME IN THE ASSESSMENT OF STUDENTS FROM THE SELECTED FACULTY

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Summary

The problem of this article is to answer the question whether and to what extent the learning outcomes are achieved by students? The problem is illustrated on the basis of own research carried out on one of education university, majoring in Economics. The effectiveness of the implementation of the effects will be studied based on the subjective opinions of students regarding the scope of their assimilation. Survey was realized within pilot program as a part of systematic survey program „*An assessment of Economy study direction by the students*” pointed in introducing students opinions concerning both quality and effectiveness of education but practical-implementation aim is to elaborate indications to improve education quality. An author used public opinion research — questionnaires to collect information. Subjective assessment of education effects realization level by students is positive but it is difficult to determine at that survey stage how realistic above mentioned assessment is. In the opinion of students an effectiveness of practical skills and competences gaining depends upon used research methods like: activating and project methods.

Keywords: National Qualifications Frameworks, learning outcomes, post-industrial society

Introduction

The reform of higher education in Poland started by the act from March 18, 2011 concerning the update of the act on *higher education law, act on scientific degrees and titles in the area of art and amendment of some statutes*, was beneficial mainly for the students. National Qualification Framework, which defines the effects of education in the area of knowledge, skills and social competences for the process of higher education introduced pursuant to the act is supposed to contribute to integral development of the student. Thanks to this the student is supposed to be better prepared for the changing and ever more demanding labour market.

However, it is necessary to be aware of the fact that even the best-prepared reform doesn't always lead to the desired results. Its effects quite often lead to changes in unforeseen directions. The efficiency of a reform depends to a large extent on the passion and involvement of stakeholders (lecturers, students, university authorities, government, employers) in the process of implementation of changes.

The goal of this article is to try to answer the question whether and to what extent the effects of education defined for particular areas of study are achieved by students. The problem will be discussed on the basis of own research carried out at one of universities in Lublin at the faculty of economy. The efficiency of achieving the goals of education will be investigated on the basis of students' subjective opinions concerning the extent to which they achieved these goals.

This article presents just one component of systemic research on the quality of higher education, which apart from investigating subjective assessment of the quality of education by students, also cover the assessments by graduates and employers carried out under conditions of real labour market.

Education facing the challenges of post-industrial society

In order to understand the challenges that contemporary people face and this the system of education, it is necessary to first understand the characteristics of the society in which it functions.

The unprecedented pace of development of information technology, which made it possible to generate, transform and spread huge amount of data, led to the establishment of information (post-industrial) society at the end of 20th century. The essence of this society is basing the production of goods and services above all on the transfer of information (Szacka 2003, p. 103).

The development of information technology at the same time contributed to the intensification of the processes of globalization, which constitute an important attribute of this society, as well as to an unprecedented pace of social, cultural, political, economic changes, which are accompanied by changes in the system of education.

The establishment of post-industrial society contributed to changes in the structure of employment. In this type of society most jobs are generated by information (services). In some societies of this kind the number of people employed in the services sector reaches up to 80%, at the same time production is maintained, or even increased (Dryden, Vos, 1999). This leads to a situation in which the demand for blue collar workers drops and the demand for white collar workers grows.

Thus, the goal of the education system is helping contemporary people adapt to the challenges posed by the contemporary society.

According to Dryden and Vos (1999) the education system of the industrial society, which shaped the social structure according to the proportion: 20% of people with higher education, 30% of craftsmen and office workers, 50% blue collar workers, does not correspond to the challenges posed by the post-industrial society. Maintaining this proportion would result in further growth of the "lower class" — unemployed, people living in poverty.

Changing and challenging labour market of the post-industrial society expects that graduates entering the labour market will be self-confident, independent and creative "managers of own future" — acting and learning independently, self-motivating. Just a small portion of them will find half-time, or seasonal jobs, which require no specialist skills.

The overriding goal, according to Schulz (1996), in the reality of post-industrial society, in which a new type of social-cultural environment (characterized by knowledge, change, risk, globalization) emerges, there is a need to create new models of behaviour. People's behaviour should become more innovative, that is, creative in all important scopes of social participation, rather than imitative.

Thus, the education system should shift the focus from teaching how to imitate to teaching how to innovate; from school teaching to continuous teaching; from theoretical to practical teaching.

The reform of higher education based on National Qualification Framework is a response to these needs. It tries on the one hand to respond to the challenges of modern civilization and on the other hand to respond to the needs and aspirations of students.

National Qualification Framework

National Qualification Framework for Higher Education was introduced by the amended *Act on Higher Education* from March 18, 2011 and implemented in October that year. The act defines National Qualification Framework as: "description through definition of the effects of education, qualifications achieved in the Polish higher education system" (Article 2. Paragraph 1. Item 18a). The Act defines the effects of education as: "scope of knowledge, skills and social competences achieved in the process of education by the student" (Article 2. Paragraph 1. Item 18c). Qualifications are: "the effects of education confirmed by a diploma, certificate, or other document issued by an authorized institution, which confirm the achievement of the assumed goals of education" (Article 2. Paragraph 1. Item 18b).

The issues associated with National Qualification Framework have also been regulated in detail by the Regulations of the Minister of Science and Higher Education from November 2, 2011 concerning National Qualification Framework for Higher Education (Dz.U. 253. Poz. 1520), and from November 4, 2011 concerning model effects of education (Dz.U. Nr 253. Poz 1521).

National Qualification Framework constitutes a basis for the preparation of areas of study and serves teachers as a foundation for preparation of academic syllabuses.

The reason for the introduction of National Qualification Framework was to some extent the social demand, that is, the process of unification of Europe, which is opening borders and starting the process of migration of young people looking for work, education, striving to learn about the world. The current scale of this phenomenon is unprecedented. The Framework serves above all the purpose of raising the transparency, availability and quality of acquired qualifications. National Qualification Framework is also supposed to help develop competences among studying young people and adapt them to the current requirements of the market.

The goal of the National Qualification Framework (Chłoń-Domińczak, 2011) is the development of society based on knowledge, including human capital through:

- Making it possible for students to achieve the highest level of qualifications adapted to the aspirations and needs.
- Full provision of diversified paths of education and ways of achieving required qualifications adapted to the needs of students.
- Education better adapted to the needs of the labour market.
- Higher quality of education.
- Higher transparency of the education system
- Support for the life-long learning perspective.

National Qualification Framework was created, among others, to satisfy the needs of the labour market and the civil society.

Research methodology and the characteristics of the sample

The method of data collection used in the research was a survey based on a questionnaire¹. Surveys were carried out in November 2013 by means of the Google Drive service. The surveys were carried out during students' classes and thus all students present at classes participated in the survey — the constituted 83.6% of the surveyed group. The research had the characteristics of a pilot project. The research constitutes a part of regular research planned in course of the project titled *Assessment of the Economics area of study by students*, which is supposed to reveal the opinions of students on the quality and efficiency of education and to work out guidelines for the improvement of the quality of education.

The selection of the sample was non-random. The survey covered only the students from the second year of Economy. The substantial scope covers the assessment of the quality of education at the first year of studies. The limitation of the substantial scope comes from the fact that the research concerns the assessment of a new study programme launched in the academic year 2012/13 and according to the research plan, data sets are collected after completion of each academic year.

In the surveyed group women constituted the majority (89%). Two thirds of the surveyed students came from small towns and villages: 43% from towns and villages with up to 5,000 inhabitants, 24% from towns with 5–15,000 inhabitants. Medium towns and big cities were represented by just 33% of students.

Achievement level of the effects of education

In order to identify the level of achievement of the effects of education, students were asked to what extent — in their opinion — they achieved the assumed effects of education after the first year of studies. For this purpose they were presented with a list of effects of education in the scope of knowledge, skills and social competences prepared by the Syllabus Council for the "Economics" area of study and were asked to assess the achievement of each effect on a 7-degree scale (answers from "definitely yes" to "definitely not"). The list contained 13 effects of education from the scope of knowledge, 10 effects from the scope of skills and 5 effects from the scope of social competences.

For the purpose of this article, on the basis of the students' answers, for each kind of education effects separately, an average was calculated. At the same time answers were allocated to four basic categories concerning the level of achievement of effects: high (answers: "definitely yes" and "yes"), medium (achievement level: "rather yes" and "rather not"), low (answers "rather not" and "not"), hard to say.

Table number 1 shows subjective assessment of the level of acquisition of competences in the scope of knowledge, skills and social competences by students who have completed the first year of studies².

Table 1. Poziom realizacji efektów kształcenia

Type of competence	Subjective assessment of the level of acquisition of competence (%)			
	High	Medium	Low	Hard to say
Knowledge	44,8	44,8	1,2	9,2
Skills	31,9	45,6	1,6	20,9
Social competences	52,4	33,8	5,2	8,6

Source: Prepared on the basis of own research.

Most respondents think that they achieved particular categories of the effects of education to a high, or medium extent. Most students assessed their achievements as highest in the scopes of social competences and knowledge. They were least confident about their competences in the area of skills.

Such distribution of the students' answers suggests still insufficient focus of syllabuses on the acquisition of particular professional skills, insufficient number of practical workshops helping develop certain skills. Students choosing academic education want to learn particular professional skills already from the beginning of studies. What also suggests that students are not satisfied with the opportunities to learn particular skills is the fact that 100% of the surveyed would choose a course run by a professional businessman.

The respondents were also asked to express their opinions on the issue of didactic methods applied during classes, in particular, on the methods' efficiency for the achievement of didactic effects (table 2). In order to make the table more transparent, answers given by students on the 7-grade scale were allocated into four categories: very good, moderate, weak, hard to say.

Table 2. The efficiency of didactic methods (%)

Didactic method	Very good	Moderate	Weak	Hard to say
Lecture	64	21	6	9
Discussion	67	24	0	9
Preparing papers	17	52	7	24
Preparing multi-media presentations	29	43	11	17
Preparing reports	46	45	2	7
Work on the basis of 'case study'	39	31	0	30
Methods of generating ideas and making decisions	57	28	0	15
Carrying out projects	65	26	2	7
Presentation and briefing	74	17	0	9
Psychological games	52	37	0	11
Solving tasks	78	20	0	2
Using books to learn on one's own	28	48	9	15
Learning on one's own	52	37	0	11
Individual work with the teacher	48	29	1	22

Source: Materials prepared on the basis of own research.

The analysis of data contained in the above table clearly shows one trend. Students assessing didactic methods in terms of their usefulness for the achievement of didactic effects gave highest marks to methods developing particular practical skills including: solving tasks, presentation and briefing, discussion, carrying out projects. Among methods making it possible to obtain knowledge, students appreciated lecture the most.

Thus, students highly appreciate activating methods and practical methods which are usually applied in course of seminars, workshops, trainings and apprenticeships. However, for academic teachers applying these methods is often hard, as due to costs classes are organized as lectures, rather than laboratory classes.

At the first year of study of the surveyed area of study, laboratory classes constitute just 17% of all classes and 41% of all workshops. Classes in workshop groups constitute 42% of all classes. This structure of classes makes it hard to achieve the basic goal of contemporary approach to education, which shifts the focus from imitating to innovating. (Skulicz, 2013).

Skulicz (2013, p. 36) concludes: "It is thus a misunderstanding to expect that students will achieve the effects »planned« in programmes (especially in the area of skills and competences) as well as to make academic teachers responsible for the effects achieved by students, without a dramatic limitation of methods of teaching based on lectures".

The profile of the graduate of economics suggests that students after graduation will be able to “independently run business activity”. Moreover, among the effects of education set for students of the first year of Economics in the area of skills and social competences there are also effects which concern the aspect of students’ entrepreneurship: “Student can take actions associated with starting and running business activity” and “can act in an enterprising way”. In this context students were asked to assess the atmosphere at the University and in particular, whether it inspires them to create ideas for business and whether it encourages them to participate in initiatives from the area of entrepreneurship. The results are shown in table 3.

Table 3. The role of university in developing students' entrepreneurship (%)

Claim	Yes	Rather yes	Hard o say	Rather not	Not	Total
Atmosphere in the department inspires me to create concepts for new businesses	4	37	48	7	4	100
Students are encouraged to take part in initiatives from the area of entrepreneurship	17	33	17	26	7	100

Source: Prepared on the basis of own research.

Students point out that they are to a greater extent encouraged to participate in initiatives from the area of entrepreneurship, than they are inspired to create business concepts.

It seems that in order to encourage and inspire students, it would be a good idea for the university to establish broad cooperation with business and organize meetings with businessmen, including graduates of Economic who achieved success in this area.

Conclusions

Monitoring students' opinions on the level of achievement of the effects of education should be a continuous process, which should be regularly repeated. This kind of research makes it possible to not just learn the opinions of students on the quality of education, but also to raise the quality of education and adapt it to the preferences of students themselves.

Changing and challenging labour market absorbs people best prepared for competition on the market — that is, people with knowledge, professional and social skills — the fastest. Thus, it is necessary to strive to achieve a situation in which students achieve the effects of education at the highest and not just average level. Moreover, the concept behind the reform of higher education, which assumes on the one hand an integrated (multidimensional) development of students and on the other hand preparing students for the requirements of the contemporary labour market, obliges universities to achieve all categories of education effects, especially the effects from the scope of professional skills, that is, application of theory in practice.

Already from the perspective of the conducted research it is apparent that the students' efficiency of learning practical skills and social competences depends to a large extent on the applied didactic methods. For this reason academic teachers should introduce active teaching methods to the area of their didactic activity. However, this requires reducing the share of lecture-like classes and at the same time raising the share of laboratory type classes, which is naturally raises the costs.

It is also necessary to remember that investigating the opinions of students concerning the level of achievement of the effects of education, we learn only about their subjective opinions on the issue, but not about the actual state of affairs. For this reason, students' subjective assessment has to be supplemented with surveys carried out among employers hiring graduates of a particular university faculty, as their opinions constitute the second important measure of the efficiency of education in the National Qualification Framework formula. This article presents only one component of systemic research concerning the level of achievement of the effects of education, that is, students' subjective assessment.

Survey questionnaire — specimen

The goal of this research is learning your opinion concerning the time needed to achieve necessary effects of education worked out for particular subjects. The research involves estimating both the number of contact hours scheduled for teaching a particular subject, as well as the number of non-contact hours that students need to spend learning themselves to achieve the necessary effects of education.

Contact hours (K) mean the sum of: hours of lectures and workshops, hours of individual consultations with teachers and hours devoted to tests/exams.

Non-contact hours (N), are hours students have to spend studying on their own in order to achieve the effects of education: hours of studying to pass an exam/test from a particular subject, hours needed to prepare case study reports, projects, reading recommended literature.

Before you start answering questions, please learn about the effects of education prepared for each subject separately — they can be found in the attached file.

The survey is anonymous. We would like you to provide honest answers. We are interested in your opinion on the subject of this research.

1. Please estimate the time needed to achieve the intended effects of education for particular subjects.

Lp.	Is the number of hours of lectures and workshops scheduled for particular subjects sufficient?		Is the number of contact hours with the teacher scheduled for particular subjects sufficient?		NUMBER OF HOURS FOR STUDYING ON ONE'S OWN NECESSARY TO ACHIEVE THE ASSUMED EFFECTS OF EDUCATION	
	1.			Name of subject		
L (lectures):*		K:**		N:***		
yes		No How many?.....	yes	No How many?.....	yes	No How many?.....
W (workshops): *						
2.			Name of subject			
	L:*		K:**		N:***	
	yes	No ile?.....	yes	No How many?.....	yes	No How many?.....
	yes	No How many?.....				

* enter the number of hours of workshops, or lectures from the lesson plan
 ** enter the number of contact hours from the syllabus
 *** enter the number of non-contact hours from the syllabus

2. Would you choose a course run by business specialists (practitioners)?

a. Yes

b. No

3. Please indicate to what extent you agree with the following statements:

Claim	Definitely yes	Yes	Rather yes	Hard to say	Rather not	Not	Definitely not
The atmosphere in the department inspires me to create concepts for new businesses							
Students are encouraged to take part in initiatives from the area of entrepreneurship							

4. Assess the level of your achievement of particular effects of education.

Directional effects of education (on the basis of the matrix of effects)	Definitely yes	Yes	Rather yes	Hard to say	Rather not	Not	Definitely not
Knowledge							
W1							
W2							
Skills							
U1							
U2							
Social competences							
K1							
K2							

5. What didactic methods do you find most efficient? (they help achieve the above-mentioned effects of education).

Methods	Definitely yes	Yes	Rather yes	Hard to say	Rather not	Not	Definitely not
Lecture							
Discussion							
Preparing speeches							
Preparing multi-media presentations							
Preparing reports							
Work with the use of case studies							
Methods of generating ideas and making decisions (eg. brainstorming)							
Carrying out projects							
Demonstration and briefing							
Psychological games							
Solving tasks							
Working on one's own with books							
Learning on one's own							
Individual work with the teacher							
Others what?.....							

6. Why did you choose Economics at **the name of university*.

Reason	Definitely yes	Yes	Rather yes	Hard to say	Rather not	Not	Definitely not
Raising chances for a good job							
Influence of the family							
Friends' influence							
Teachers' influence							
The faculty matches my interests							
I didn't qualify for another faculty							
I wanted to spend more time studying							
Family tradition							
Social prestige							
Chance							
Fashionable, popular area of study							
Location							
University's prestige							
University has good infrastructure							

7. Where did you learn about the faculty of Economics at **name of university*.

- a. Leaflet
- b. From family/friends
- c. Internet
- d. Education fairs
- e. Radio
- f. Local tv
- g. Press
- h. From graduates
- i. Meeting with a representative of the university
- j. Others, what?.....

8. What do you think of the usefulness of information about the faculty of Economics obtained from the following sources?

Source of information	Full and exhaustive	Basic	Very general	Insufficient and not really useful	Hard to say	Haven't come in touch with
Leaflet						
Friends/family						
Internet						
Education fairs						
Radio						
Local television						
Press						
Graduates						
Meeting with representatives of the university						
Others						

Personal data:

9. Provide the average of all grades from your student book in the surveyed year:

.....

10. Year of studies:

- a. First
- b. Second
- c. Third

11. Sex:

- a. Female
- b. Male

12. Place of origin:

- a. Places with up to 5,000 inhabitants
- b. Places with 5,000 to 15,000 inhabitants
- c. Places with 15,000 to 30,000 inhabitants
- d. Places with 50,000 to 100,000 inhabitants
- e. Places with more than 100,000 inhabitants

Table 1. Level of achievement of the effects of education (%)

Effects of education in the areas of knowledge	high	medium	low	hard to say
You have basic knowledge about the character of economic sciences, their place in the system of science and relations to other sciences	55	43	0	2
You know categories, laws, theories and economic models making it possible to describe market phenomena and processes, as well as relations between them	39	54	0	7
You have basic knowledge about other social sciences, that is, sociology, philosophy and law, as well as their relations with economic sciences	41	53	2	4
You have knowledge about mathematics, statistics and econometrics necessary for an economist	57	35	0	8
You know theoretical and practical aspects of international economic cooperation, as well as the chances and threats associated with ongoing processes of regionalization and globalization	61	33	2	4
You have knowledge about the rules, regulations and factors influencing the competitiveness of market participants	48	46	2	4
You have knowledge about the influence of market structures and business environment on the results of companies' business activity	41	35	2	22
You have knowledge about norms, rules and legal-organizational regulations determining economic structures and institutions and about the regularities governing them	30	59	2	9
You know the rules of registration of business operations and preparation of financial reports, has knowledge about the methods and tools for economic analysis	47	42	2	9
You have basic knowledge about management and its role in the functioning of a company and knows factors shaping managerial decisions	48	43	0	9
You know the methods and tools, including techniques of collecting data supporting the process of making reasonable economic decision taking into consideration the character of trade exchange	37	50	2	11

cont. table 1

You understand mechanisms and rules of international trade policy and knows basic international trade formulas	41	48	0	11
You know the rules and forms of creating commercial ventures with consideration of the character of trade exchange	37	41	2	20
Effects of education in the area of skills	high	medium	low	hard to say
You know how to properly identify and interpret economic, financial and social phenomena	39	44	0	17
You know how to use theoretical knowledge to describe, analyse and predict economic phenomena and processes	32	51	4	13
You can handle economic calculations and takes advantage of theories of behaviour of market entities to interpret and solve economic issues	32	61	0	7
You are able to use quantitative tools for the purpose of solving decision-making, strategic and operating issues in economic processes	24	0	11	65
You are able to manage risk in domestic and international trade transactions	17	46	4	33
You are able to assess the influence of market structures on the behaviour of companies, as well as the character and intensity of competition, as well as to shape strategic decisions and build scripts of events	17	51	4	28
You take advantage of basic knowledge in the process of preparing financial reports and is able to make operating and strategic decisions depending on the results of economic analyses	31	39	2	28
You can identify factors determining managerial decisions and uses the acquired knowledge to carry out management functions	26	52	0	22
You are able to take advantage of methods and tools, including ICT to support the implementation of exchange processes	34	49	2	15
You are able to prepare reports from conducted analyses, papers and present opinions on the subject of exchange economy	26	39	0	35
Effects of education in the area of social competences	high	medium	low	hard to say
You can cooperate on carrying out tasks in economic structures	35	52	2	11
You can work in a group and assume various roles in it	76	22	0	2
You can supplement and improve acquired knowledge and competences	71	25	0	4
Preparation for work in public institutions and business entities	32	40	24	4
You can act in an enterprising way	48	30	0	22

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- ¹ Questionnaire specimen in the attachment.
- ² Detailed table in the attachment.

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