



# Human Intellectual Capital and Intellectual Capital of an Organization

## El capital humano y el intelectual de una organización

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#### ABSTRACT:

In today's world, the value, competitiveness of an organization is determined by a key factor such as intellectual capital, i.e. knowledge that is valuable for its own sake and therefore has a certain value; capitalized knowledge. Intellectual capital of an organization includes all knowledge of the employees of the organization, and therefore consists of intellectual capitals of different people. It does not simply unite such capitals, but implies the synergy of all intellectual resources to extract value. The article discusses different definitions of the concept of intellectual capital formulated by domestic and foreign researchers and presents the student survey results in order to find out the students' opinions on intellectual capital and evaluation thereof.

**Keywords:** Intellectual capital, evaluation, student survey results

#### RESUMEN:

En el mundo de hoy, el valor, la competitividad de una organización está determinado por un factor clave como el capital intelectual (conocimiento que tiene valor y, en consecuencia, valor; conocimiento capitalizado). El capital intelectual de la organización incluye un conjunto de todos los conocimientos de los trabajadores de la organización, lo que significa que consiste en capital intelectual de diferentes personas. No solo combina estos capitales, sino que implica la sinergia de todos los recursos intelectuales para recuperar el valor. En el artículo se examinan las diferentes definiciones del concepto de "capital intelectual" formuladas en las obras nacionales y extranjeras, así como los resultados de la encuesta realizada por los estudiantes con el fin de identificar sus opiniones sobre el capital intelectual y su evaluación.

**Palabras clave:** capital intelectual, evaluación, resultados de la encuesta de los estudiantes

## 1. Introduction

At the moment, the concept of intellectual capital has many different interpretations. However, there is no single correct interpretation.

Almost all definitions of intellectual capital recognize that intellectual capital is knowledge (some intangible asset) and its value (Table 1).

**Table 1**  
Definitions of the essence of the concept and structure of intellectual capital in national and foreign studies

Foreign studies	National studies

Intellectual capital is the roots of the hidden conditions of development that lie behind the visible façade of its buildings and range of goods. [Edvinsson, Malone, 1999, p. 434].	Intellectual capital of an entity is the value of the total intellectual assets it has, including intellectual property, its natural and acquired intellectual abilities and skills, as well as the knowledge bases accumulated by it and useful relations with other entities [Leontiev, 2002, p. 101].
Intellectual capital is a term for intangible assets without which the company cannot exist in the modern world [Brooking, 2001, p. 30].	
Intellectual capital (knowledge) is anything valued by the organisation that is embedded in people or derived from processes, systems, and the organisational culture [Bukowitz, Williams, 2002, p. 3].	Human intellectual capital is an interlinked relationship between human intellect and its intellectual developments that have practical applications [Loseva, 2010, p. 271].
Intellectual capital consists of the stocks and flows of knowledge, ability, skill and competencies available to an organisation. [Armstrong, 2004, p. 64].	Intellectual capital (individual intellectual capital or personal intellectual capital) is a type of capital, including a social subject's intelligence (of a human being, group of people, organisation, society) and products of its activities i.e. new information and knowledge, those that are of social and economic value and providing it with an income (benefit) and competitive advantages [Dresvyannikov, Loseva, 2017, p. 8].
Intellectual capital — total knowledge of a company's personnel who make the company competitive. This is intellectual material — knowledge, information intellectual property experience — that can be put to use to create wealth [Stewart, 2007, p. 11-12].	

According to the data presented in Table 1, it can be concluded that in foreign studies intellectual capital is considered mainly in relation to the entire organization (intellectual capital of the organization), and in domestic studies there are studies in which the intellectual capital of an individual (employee) is studied.

In order to derive our own definition of the concept of intellectual capital, the definitions such as 'intellect', 'intellectual' and 'capital' were studied in detail separately (Nadtochiy, 2017).

If we try to literally interpret the concept of intellectual capital, we can say highly conditionally that it is wealth of mind (wealth of reason).

*Reason (mind) is the highest form of theoretical mastering of reality, manifested in the human ability to think (Source: Gamezo M.V., Domashenko I.A. Atlas on Psychology: Information and Methodological Guide to Human Psychology Course. Moscow: Pedagogical Society of Russia, 1999. P. 173).*

Let us take, for example, some of the meanings of the word *capital*. Capital is [Dictionary of Economics, 2017, p. 266]:

- Assets that can generate income;
- Wealth (securities, money, property) used for its own increase;
- In Marxist Political Economy — value which brings added value through the use of hired labor, i.e. self-increasing value.

Thus, all the above meanings of the word *capital* can be naturally considered in combination with the word *intellectual* as well subject its specificity.

For example: intellectual capital is:

- Mental abilities that can generate income;
- Human wealth (expressed in knowledge, skills and abilities) used for its own increase;
- (Mental) abilities that bring added value through their use, i.e. self-increasing value.

Economically speaking, intellectual capital is a special kind of capital because it provides an economic benefit to a person in the long run.

Based on the theoretical study results, the following author's definition was proposed: intellectual capital is the value of intangible assets (knowledge, skills, abilities, experience) created by intellectual labour (Nadtochiy, 2017).

This definition was further clarified as follows: intellectual capital is the value of intangible assets (a set of knowledge, skills, abilities and experience) that are the product of human intellectual activity.

Both definitions can complement each other.

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## 2. Methodology

In 2017, a survey was conducted among students of the Russian Technological University (MIREA) in order to find out their opinion on the essence of the concept of 'intellectual capital', their understanding of the content of their intellectual capital and the possibilities of assessing their intellectual capital.

The respondents were asked the following questions:

- What is intellectual capital (what do you mean by intellectual capital?);
- What intellectual capital do you currently have?
- How can one evaluate your intellectual capital?

The first to fourth year students have participated in the survey (educational disciplines: Staff Management; State and Municipal Management; Accounting, Analysis and Audit; Optical Engineering; Biotechnical Systems and Technologies; Innovation; and Management (Bachelor's Programme, full-time education). All in all, 128 questionnaires were collected.

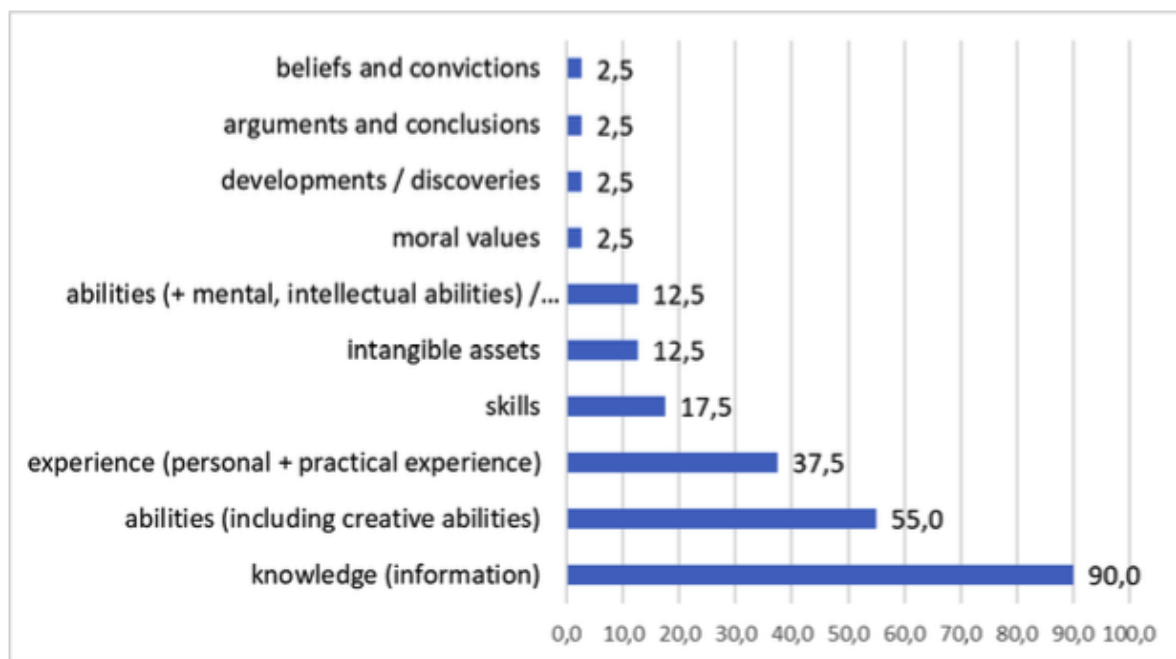
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## 3. Results

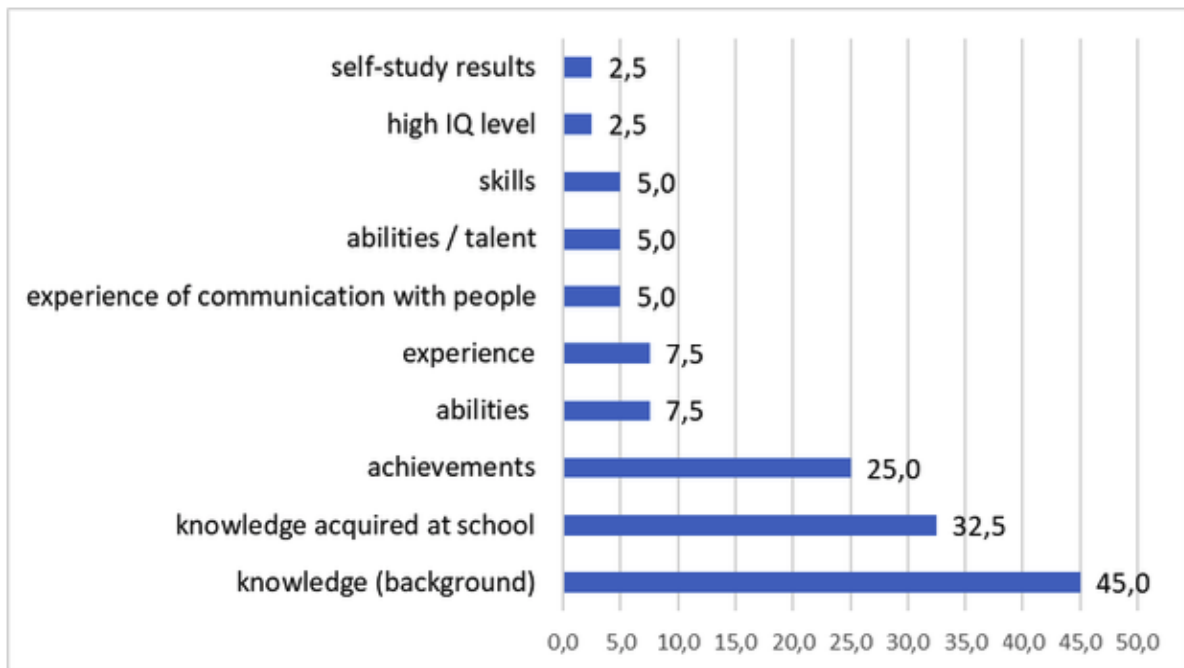
Let us discuss the survey results separately for each year students, and then we will provide the generalized data.

The results of the first-year students' answers to the questions are shown in Figures 1, 2 and 3.

**Figure 1**  
Answers to the question: What is intellectual capital?  
(in % of the total number of respondents)



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**Figure 2**  
Students' opinions on the content of their own intellectual capital  
(in % of the total number of respondents)



**Figure 3**

Distribution of answers to the question on the evaluation of the students' own intellectual capital (in % of the total number of respondents)



The students of each-year also gave interesting definitions of intellectual capital and presented their arguments as to the concept under consideration. Here are some definitions given by the students (cited verbatim):

- Intellectual capital is a certain set of knowledge and skills that a person possesses and can use in a specific area of activity;
- In order to understand what intellectual capital is, it is necessary to know the meaning of the term *capital*. Capital means the specific investments needed to gain various benefits in the future. Thus, intellectual capital is a body of knowledge that an individual possesses and uses in a specific area to gain benefits;
- Intangible assets without which the company cannot exist;
- People's knowledge used to increase profits;

- A set of systematic knowledge, beliefs, arguments, and conclusions derived from mental, research and analytical activities;
- It is knowledge that can be converted into value;
- My knowledge and skills that will enable me to gain profits in the future;
- Production resources and human skills that are used to maximize profits and modernize production.

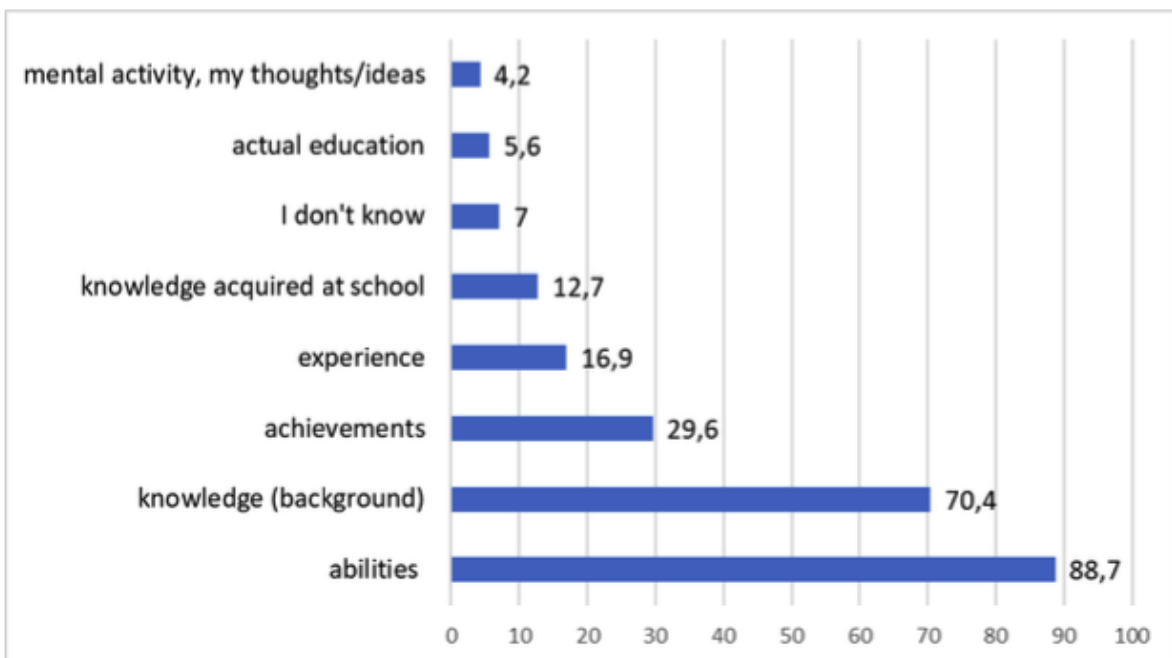
The answers of the second-year students to the above questions are illustrated in Figures 4, 5 and 6.

**Figure 4**  
Answers to the question: What is intellectual capital?  
(in % of the total number of respondents)



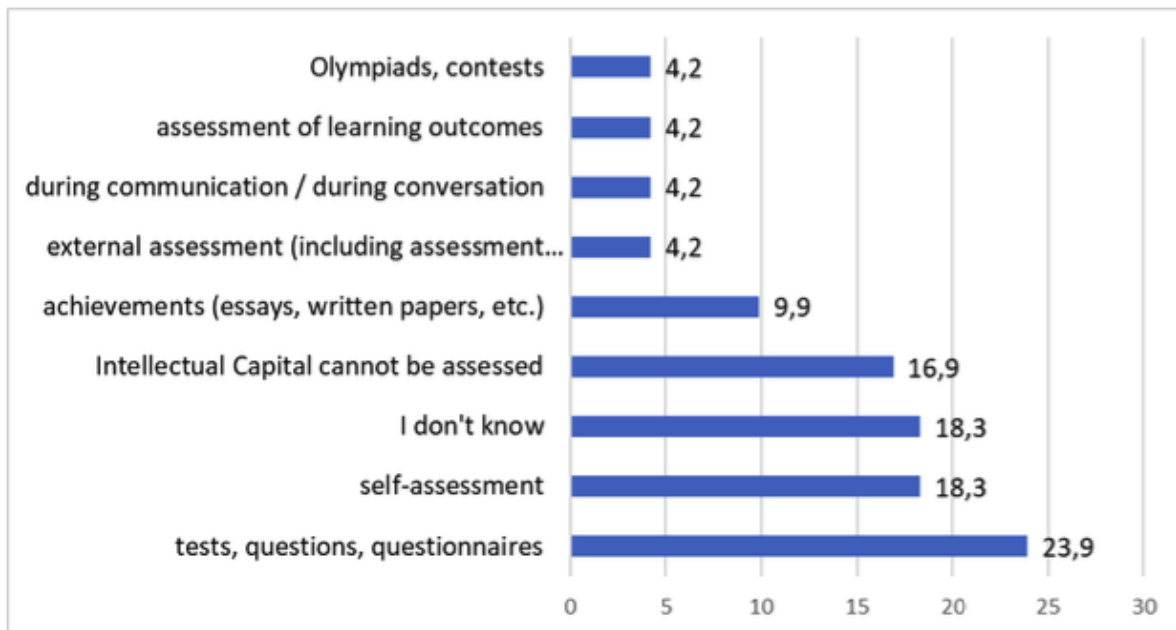
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**Figure 5**  
Students' opinions on the content of their own intellectual capital  
(in % of the total number of respondents)



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**Figure 6**  
Distribution of answers to the question on the evaluation of the students own intellectual capital  
(in % of the total number of respondents)

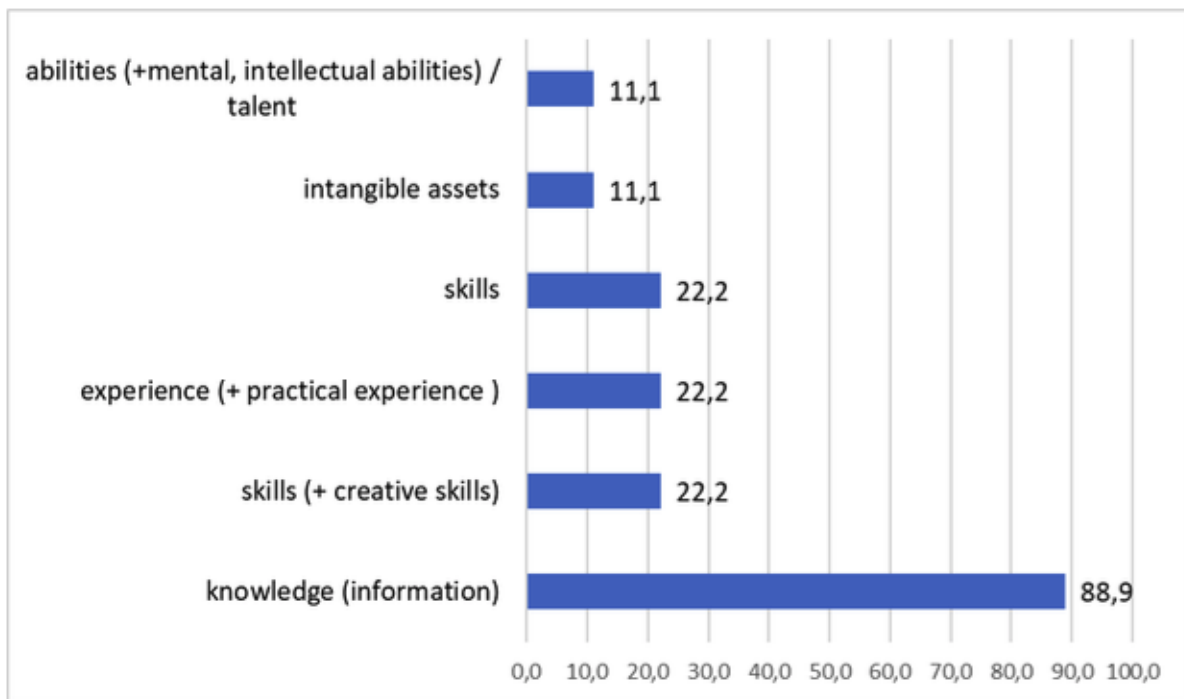


The definitions of the concept in question, which were written by second-year students, are as follow:

- Knowledge, skills, experience and intangible assets, including patents, databases, software, etc;
- A certain indicator of the level of education or training of a certain person or group of people, defined by the totality of various works that determine the level of knowledge in one area or another;
- Amount of knowledge accumulated in the process of long-term learning, which is characterized by the ability to find solutions to various types of problems;
- A set of information available in the human brain that can be offered in the market in exchange for material resources;
- Something that will enable us to stand firm and get credits in the scientific world;
- Ability of a living organism to adapt to the environment. Intellectual capital is a set of acquired skills, abilities, knowledge necessary to improve the quality of life;
- Certain advantages over other people;
- Knowledge and abilities to operate and apply information and skills to solve a wide range of tasks. Intellectual capital can be evaluated by an individual's ability to solve practical tasks in a specific area that requires an intellectual solution, i.e. by practical results of intellectual effort applied;
- A store of knowledge of each person. Intellectual capital can be increased in quantity and in quality (e.g., by studying new subjects or expanding knowledge in the old ones);
- A set of knowledge and skills that a person possesses, as well as what he or she creates using them. And the capital created using them should replenish another person's capital. Intellectual capital will never be sufficient, it should be replenished throughout life;
- A unique product of the human thinking process, which has a certain value, it is the accumulated knowledge which a person can adapt to one or another situation or task;
- A set of accumulated resources of an individual/legal entity expressed in the form of intellectual property, knowledge and information, as well as skills and abilities;
- A set of unique information resources possessed by a company or a specific employee. Intellectual capital can be evaluated by degree of its:
  - Uniqueness (this is a fundamentally new knowledge or specification of existing knowledge);
  - Efficiency (whether this intellectual capital can be commercialized or it is just theoretical knowledge);
  - Form of presentation (in which format the intellectual capital is presented: presentation, article, collection, body of knowledge).

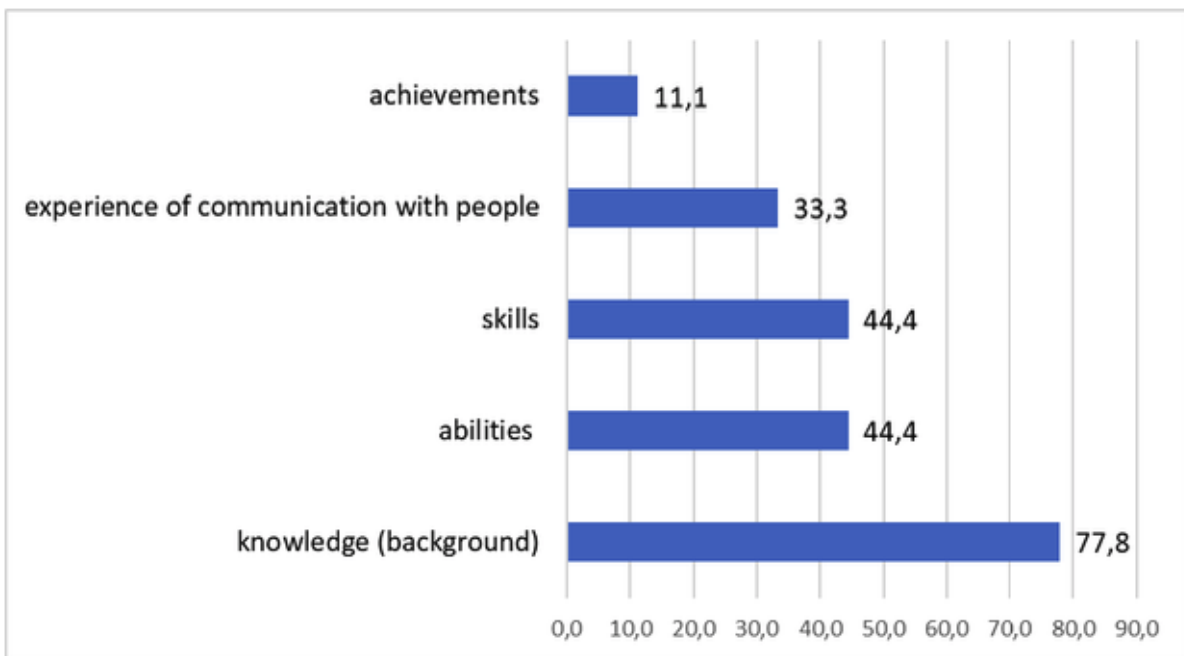
Results of survey of the third-year students are displayed on Figures 7, 8 and 9.

**Figure 7**  
Answers to the question: What is intellectual capital?  
(in % of the total number of respondents)



**Figure 8**

Students' opinions on the content of their own intellectual capital (in % of the total number of respondents)



**Figure 9**

Distribution of answers to the question on the evaluation of the students' own intellectual capital (in % of the total number of respondents)

The third-year students gave one author's definition of the concept of intellectual capital

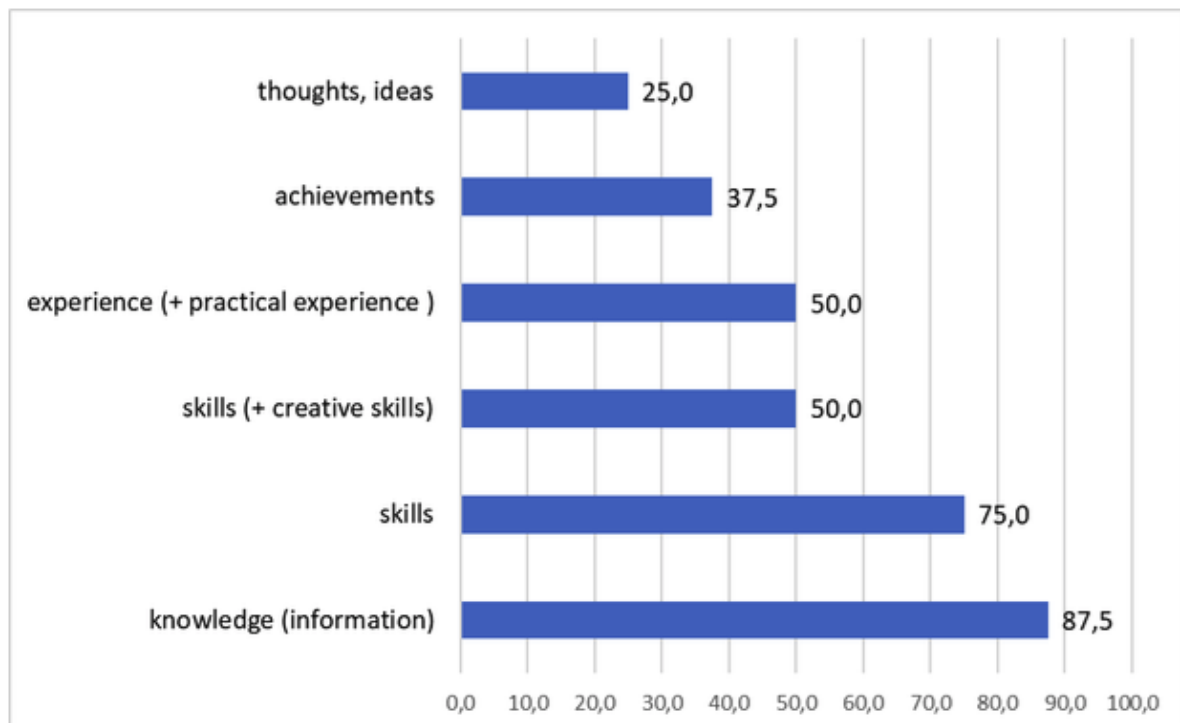


and expressed their opinion on the possibilities of assessment of intellectual capital:

- Intellectual capital is a set of all discoveries, inferences, knowledge and conclusions used to create different types of intellectual property;
- Intellectual capital assessment: available knowledge can be compared with the knowledge most demanded in the society at the moment. Assess the importance for the development of scientific and technological progress.

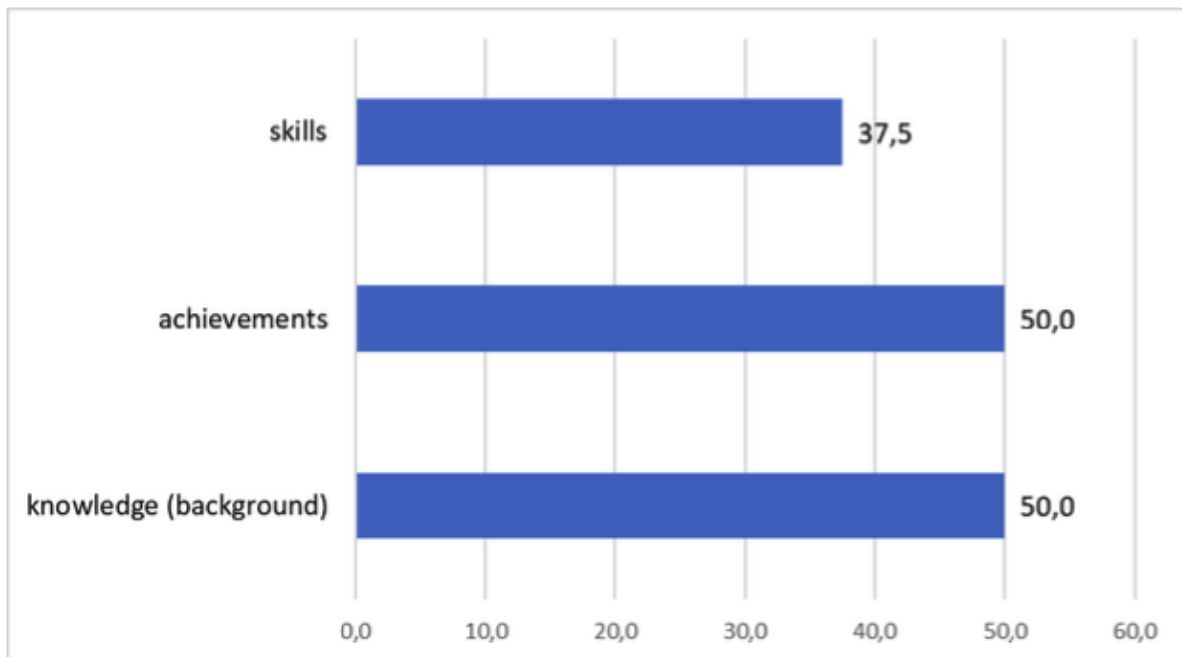
The fourth-year students' opinions are presented in Figures 10, 11 and 12.

**Figure 10**  
 Answers to the question:  
 What is intellectual capital?  
 (in % of the total number of respondents)



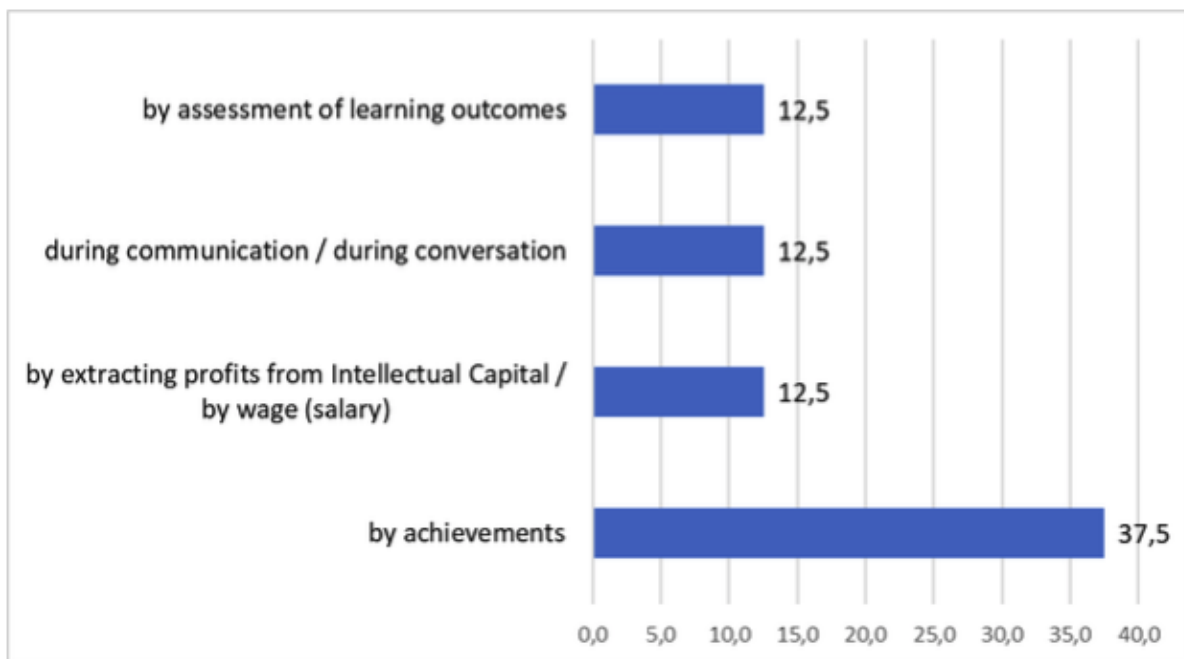
**Figure 11**  
 Students' opinions on the content  
 of their own intellectual capital  
 (in % of the total number of respondents)





**Figure 12**

Distribution of answers to the question on the evaluation of the students' own intellectual capital (in % of the total number of respondents)

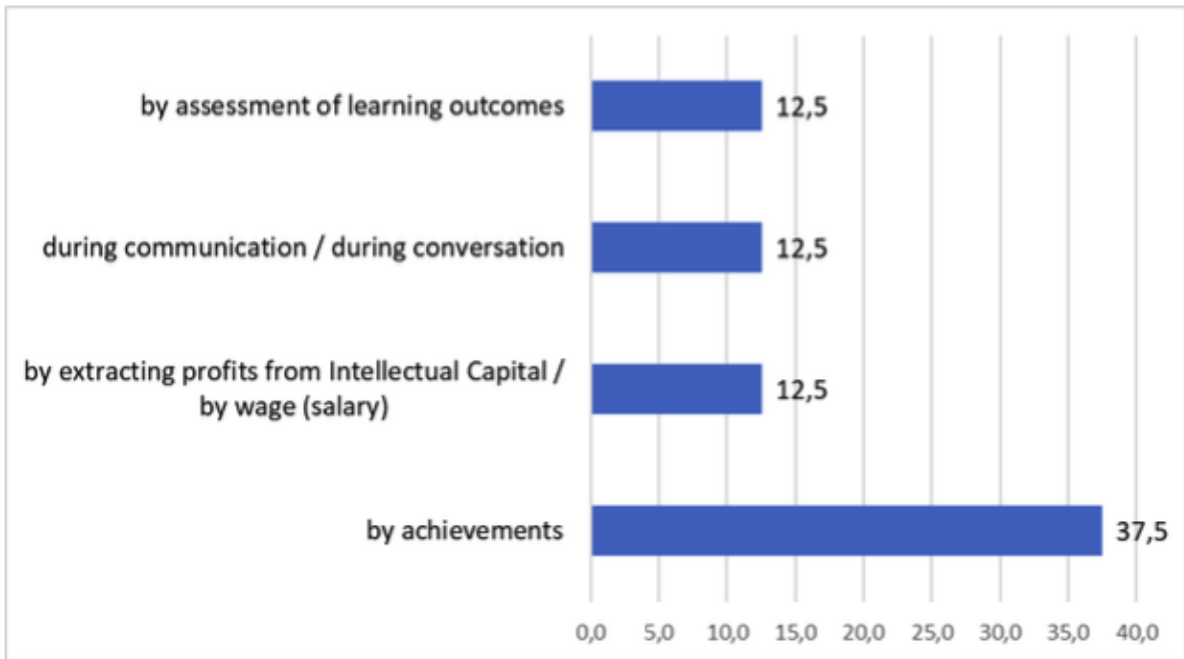


The fourth-year students simply enumerated what they understand by *intellectual capital*: this is mainly knowledge, skills, abilities and experience.

The overall results of the survey are presented in Figures 13, 14 and 15.

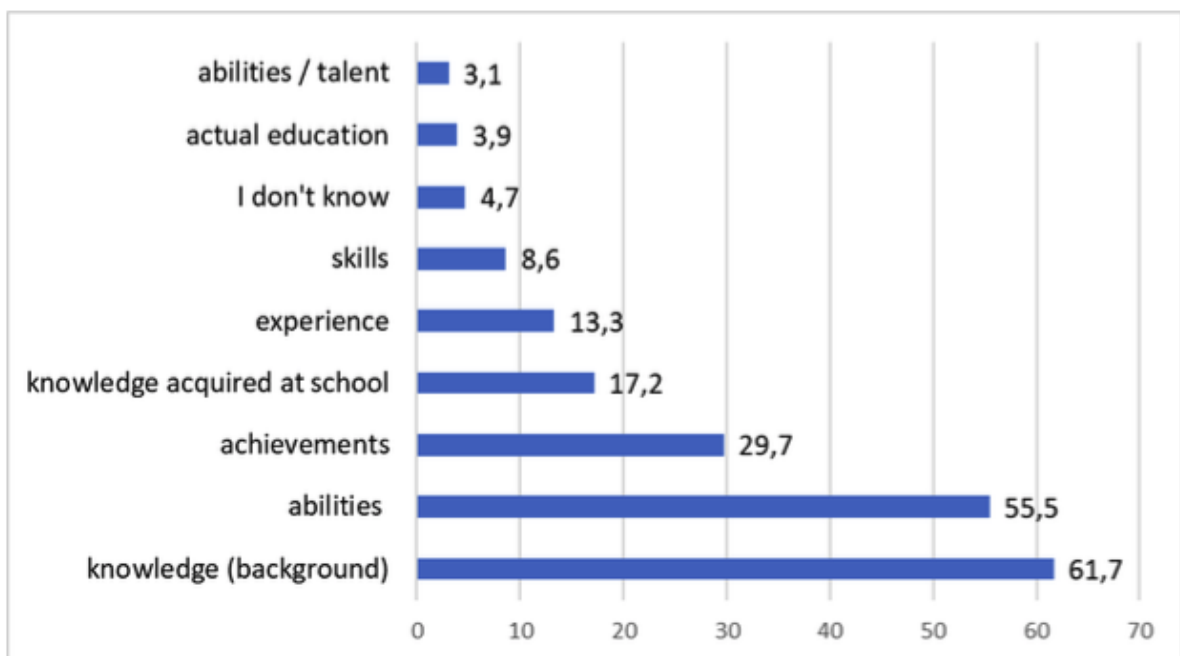
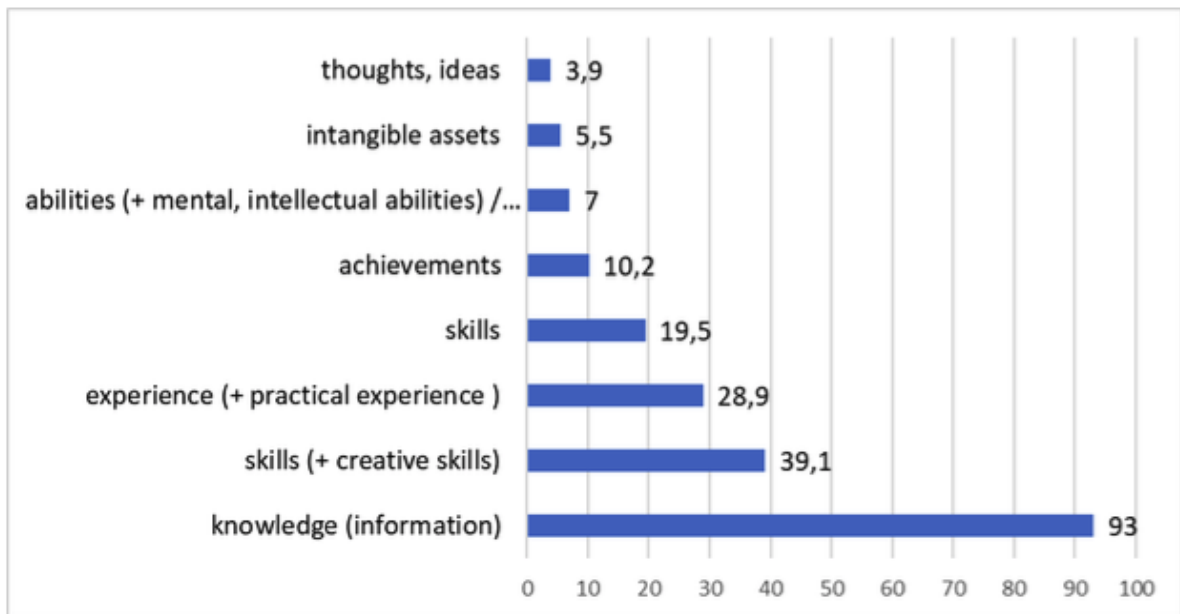
**Figure 13**

Answers to the question: What is intellectual capital? (in % of the total number of respondents)



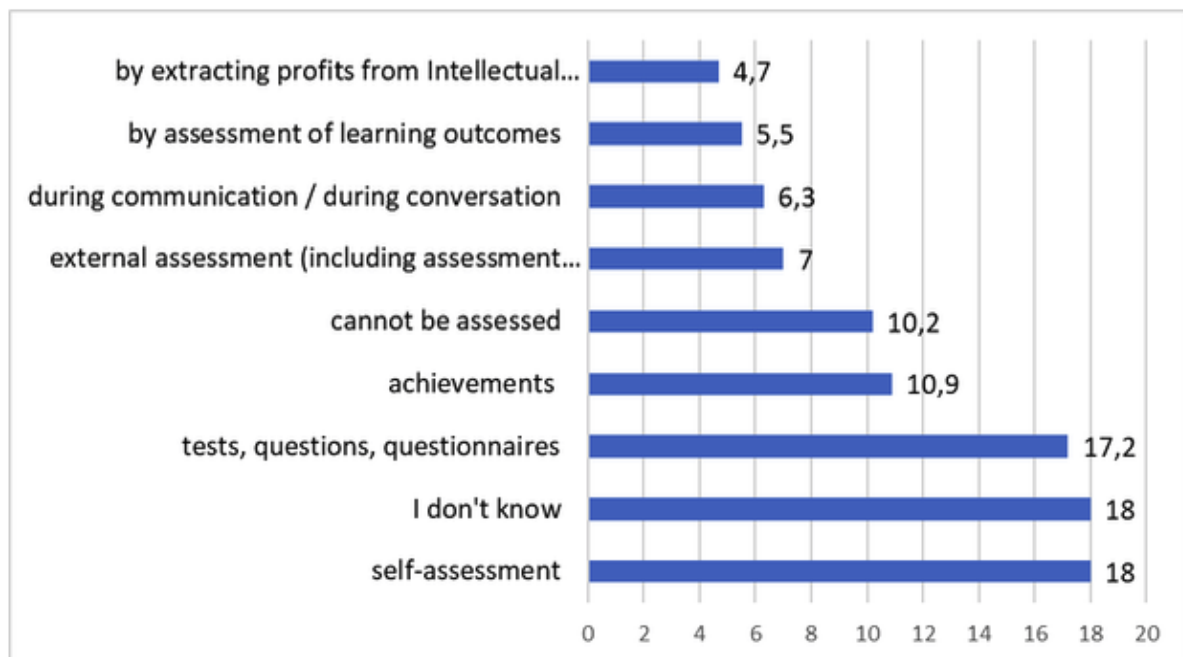
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**Figure 14**  
Students' opinions on the content of their own intellectual capital  
(in % of the total number of respondents)



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**Figure 15**  
 Distribution of answers to the question on the evaluation  
 of the students' own intellectual capital  
 (in % of the total number of respondents)



The analysis of the survey data shows that intellectual capital is basically understood as knowledge (93%), skills (39.1%) and experience (28.9%). Contemporary students believe that they possess some background gained earlier (61.7%), possess certain skills (55.5%) and have achievements in different areas (29.7%) — this is how they define the content of their intellectual capital. And it is suggested to evaluate intellectual capital by themselves (18% self-assessment), using tests, surveys (17.2%), as well as based on available human achievements (10.9%). However, 18% of respondents do not know how to evaluate intellectual capital, and 10.2% believe that it cannot be done at all.

By human achievements (the answer "achievements") the respondents understand: term papers, reports, participation in various university events (scientific seminar, round table, etc.), participation in scientific conferences, previous education (school, college, etc.), results of various types of training (e.g., basketball playing skills), learning materials (prepared essays, presentations, etc.), scientific articles, creative works, acquired skills (e.g., fencing, swimming, management skills, etc.), various certificates, credentials, diplomas and testimonials.

## 4. Conclusions

It is undeniable that a person acquires knowledge, skills and abilities in the process of learning or self-studying. To this end, the idea of modern education which is an integrated system that includes the production, preservation and translation of knowledge, as well as the upbringing and moral development of an individual becomes relevant. (Arapov, Arapova, 2018).

As a result of this research, the conclusion is obvious: each person has his or her own intellectual capital and each person understands in his or her own way what intellectual capital is (so many men, so many minds).

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