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**IMAGE OF DISCIPLINES AND UNIVERSITY: A NEW  
APPROACH TO RESEARCH**

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***Abstract***

This article is devoted to the study of the image of the educational organization in the context of Peter the Great St. Petersburg Polytechnic University through the study of the image of the taught disciplines. The concept of the image of a higher educational institution and approaches to determining the structure of the image of the university and the content of its components are examined. It is highlighted that external image of SPbPU is more significant than internal one. That gap can be explained with the following fact: in a competitive environment the institution needs strengthen its position, expand international relations, attract foreign partners, provide every assistance in the preparation, organization and holding of conferences, seminars, meetings with foreign guests, etc. The results of a preliminary survey of university students helped us to justify the feasibility of the research. Particular attention is drawn to the research process. Modified Zaltman's ZMET was proposed as research methodology. The objective of the present study is Peter the Great St. Petersburg Polytechnic University students. The lexical material identified during the study was processed using scaling. Obtained scales were analysed for correspondence to the scales of the semantic differential of C. Osgood. Interpretation of the results made it possible to conclude that generally students perceive the image of the university positively, but the field for enhancing the image exists.

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## 1. Introduction

Higher education is a significant area of life, it involves the training of highly qualified personnel in a particular field that are called upon to make responsible decisions and fulfil tasks aimed at developing the industry in which they work, developing the scientific and industrial potential of the state. However, it is possible only if this education proves to be of high quality.

The quality of education is affected by many factors: the level of training of the faculty, its motivation for scientific and pedagogical activity, both laboratory and technical equipment, the content of training programs, the average level of training quality and the demand for young professionals in the labour market (Bikse, Lusena-Ezera, & Rivza, 2016).

However, such a notion as the image of the university plays a significant role in the choice of university entrants, its attractiveness for scientific specialists and the development of research projects (Chirkov, 2017).

Nowadays the notions of an image and of an image formation are of great importance, because in a highly competitive market the company pays attention not only to the quality of the service or product provided but also to the image of an organization that provides them. It is the needs of the public that form the image of the organization. In Russia the notion of "image of the university" appeared relatively recently, in the mid-90s of the twentieth century when it became clear that education is a service that must satisfy the needs of society along with others. And what is more important the society felt the urgent need for this service.

Forming an image or imaging is a process aimed at creating a certain image of an object (the image's prototype) with a certain perception of the image in the form of a conscious or unconscious opinion about it (about the image prototype) in order to achieve a psychological attraction of the image's audience to this object. The ultimate goal of forming the image is the formed psychological attraction of people to the object for the appearance of certain subsequent actions with respect to this object. The very process of image formation (image-making) with full justification is considered as a communicative technology. At the core of the formation of the image lies the reflection of the properties and characteristics of the object in the human psyche.

Under the formation of the image of the university is understood the process, during which a certain planned image is created on the basis of available resources. When creating an effective image (increasing competitiveness, facilitating access of the university to financial, information, human and material resources), it is necessary to clearly identify what kind of image the organization needs at the current stage of development. The construction of the image of Russian education is not limited only with the formation of the image of the university but includes a full range of work on various levels of education. In this article the issue of the image of the university as one of the components of the image of education will be considered.

The main factors influencing the formation of the image of the university based on various target groups surveys (students, employees of educational structures, employers and potential clients) are:

- -experience and experience in the field of education;
- fame in professional circles and among the public;
- the reputation of the head of the organization, the professionalism of management;

- prospects for the professional development of the educational institution;
- the demand for graduates in the labour market, the level of their salaries, career advancement;
- the attitude of the organization's employees to the students;
- level of professionalism, fame of teachers, their exactingness;
- the opinion of students about the organization of the educational process, the level of teaching;
- territorial location, external and internal registration of the institution;
- professionalism of the management's work with the media in the promotion of their services;
- openness and integration of the educational institution (Ignatovich & Ignatovich, 2014).

Aforementioned factors should be added to the quality of education, the prestige of specialties, the cost of training and the level of foreign relations of the university. It is necessary to pay special attention to the fact that among these factors the student's opinion about the university (Gustafsson & Eriksson, 2017) takes the most important part, which again confirms that the image of the institution as a whole is influenced by the internal components of the image, and also image of the graduate.

## 2. Problem Statement

As part of the preliminary study, we found that imagemakers focused on the internal image of SPbPU are less than on the external. Such a shift can be explained with the fact that in a situation of intense competition the institution needs to take root, expand international ties, attract foreign partners, provide every assistance in the preparation, organization and holding of conferences, seminars, meetings with foreign guests, etc. This, in turn, takes away a large number of resources: labour, financial, intellectual.

As it was mentioned above, the components of the internal image which you need to pay attention to are the image of the discipline, the image of the teacher, the image of the student, the image of the structural units (prior to establishing communication between the divisions, how quickly news reaches, how quickly the messages are exchanged, the result of joint activities, etc.). Not only for external target groups, but also for the internal audience of the university - students, teachers, staff, administration - it is necessary to organize internal communications, since this group is the most active carrier and translator of information about the university, and university image and its business reputation directly depend on the degree of their loyalty, adherence to the university (Vershinin, 2015).

An important step in studying the state of the image of the university and the effectiveness of its image policy is to analyse the opinions and values of target audiences (Tarasova, 2016).

The image of the educational institution is the image of the institution as a whole, and it is inextricably linked with the main activity of the educational institution, the organization of the educational process and, ultimately, the disciplines taught (Marín-Díaz, Sampedro-Requena, & Vega-Gea, 2016), which is why the study analyses the emotional attitude to the disciplines taught in SPbPU.

In our opinion, the disciplines taught are an integral component of the university's internal image. After all, throughout the entire training, at the beginning and up to the end, the student attends classes in certain disciplines and nothing forms his understanding of the university, as the quality of teaching these disciplines, the image of the teacher and the disciplines themselves. This is something that a student faces every day.

To substantiate this position, we conducted a survey among students of the Humanitarian Institute of the Peter the Great St. Petersburg Polytechnic University, in which 87 people took part. All respondents confirmed the need to work on internal and external components in the formation of the image.

94% of respondents answered “yes” to the question: “Do you think that the image of the university as a whole is inextricably linked with the quality of teaching disciplines in it?” And 88.7% of respondents confirmed that the image of the discipline is associated with the professional image of the teacher.

### **3. Research Questions**

The question of the pilot study described in this article was whether the image of the university in the students' perception coincided with that which its creators wanted to see, and also to develop the directions of correction if necessary.

### **4. Purpose of the Study**

The purpose of the study presented in this article is to analyse the image of the Peter the Great St. Petersburg Polytechnic University through the eyes of the subjects of the educational process, i.e. through the eyes of students.

### **5. Research Methods**

In recent years, neurosciences have increasingly become embedded in the education sector (Bercea Olteanu, 2015; Norman, 2016).

Considering the possibilities of applying the results of neuro research in the field of education, attention should also be given to modern research in the field of neuromarketing. These studies show that while choosing a product, consumers rely on emotional factors that are often not realized, as well as unconscious templates and stereotypical reactions that help save time in making decisions. The approaches of neuromarketing in recent years are increasingly used in education. (Wilson & Elliot, 2016; Agarwal & Dutta, 2015; Ababkova & Leontieva, 2016).

The study used the Zaltman's metamorphic model as one of the universal methods for studying the emotional attitude of the consumer to the product. In the marketing of educational services, the experience of using this approach has already been repeatedly applied (Van Dessel, 2005). However, after giving the specifics of the research task, we moved away from the traditional approach and modified the data collection process. This approach has already been used by us to analyse the image of the university (Leontieva & Ababkova, 2018), but in another procedure of the study.

This method was developed in the early 1990's by Professor Jerry Zaltman and patented in 1995 under the name ZMET, it is used in social, marketing and neuromarketing research (Zaltman, 2016).

The main goal of the ZMET analysis is to reveal the pattern of images that affect the subconscious perception of the product presented to the respondents. The set of images united in the structure reflects the main unconscious landmarks and key values that determine the response of respondents to different incentives and information related to a certain product.

Students of the 2nd and 3rd year of the Humanitarian Institute who studied in the specialty "Advertising and Public Relations" took part in the present study. The total sample size was 107 people.

Students were asked to choose a picture, a photo or any illustration associated with each of the listed disciplines:

- Imaging; consumer behaviour; marketing research; - the basics of advertising; - the foundations of entrepreneurship; - Fundamentals of PR.

The choice of these disciplines is also due to the fact that all of them are profile for students and compulsory for studying at the university.

The subjects were also asked to make a structured description of the choice made: it was suggested to indicate the metaphor and emotion to each discipline, and also to explain the reason for choosing one or another illustration.

## 6. Findings

An example of one of the illustrations is shown in Fig. 01 (drawn by the respondent, published with his consent)



**Figure 01.** Example of an associate illustration of the discipline "Fundamentals of PR" obtained from one of respondents.

This emotion is emotion of interest, the reason for choosing, "PR is like a growing tree, a new branch always appears. It's interesting to learn everything more and more."

The processing of the results of the study was carried out by grouping the respondents' answers into 8 categories, which are bipolar scales. Scales and treatment are presented in Table 01.

**Table 01.** Bipolar scales describing the attitude of students to the university

Positive scale	Negative scale	Treatment of categories
Confidence	Uncertainty	Confidence in the correctness of their choice, feeling in the right place
Pleasure	Discontent	Feeling of joy, entertainment, usefulness
Outcome	Unwillingness	Focus on result, purposefulness
Interest	Indifference	Vigor, to be involved in something

The scales below reflect the measurements of the semantic differential of Charles Osgood. This approach allows us to identify the structure of latent (hidden) factors, the criteria on the basis of which respondents construct estimates in relation to the object under study. The method of the semantic differential is a combination of the method of controlled associations and scaling procedures. Measured objects (concepts, images, individual characters and others) are estimated by a number of bipolar gradual (three-, five-, seven-point) scales, the poles of which are given by verbal antonyms.

The method of Charles Osgood consists in grouping the scales of scores in the framework of three directions characterizing the activity of the object, the strength of the object and the emotional evaluation of the object by the subject. This approach has found wide application in various studies (Shevchenko, 2013).

Each scale has positive and negative pole. Choosing a positive pole of the scale that reflects the evaluation of the stimulus, the subject expresses satisfaction with the object; if the positive pole of the scale determining activity was selected the subject feels a certain "call to action" towards the evaluated object. The scales reflecting the strength of the object's impact on the respondent show the level of emotional stress experienced in relation to the stimulus object, in our case the taught disciplines.

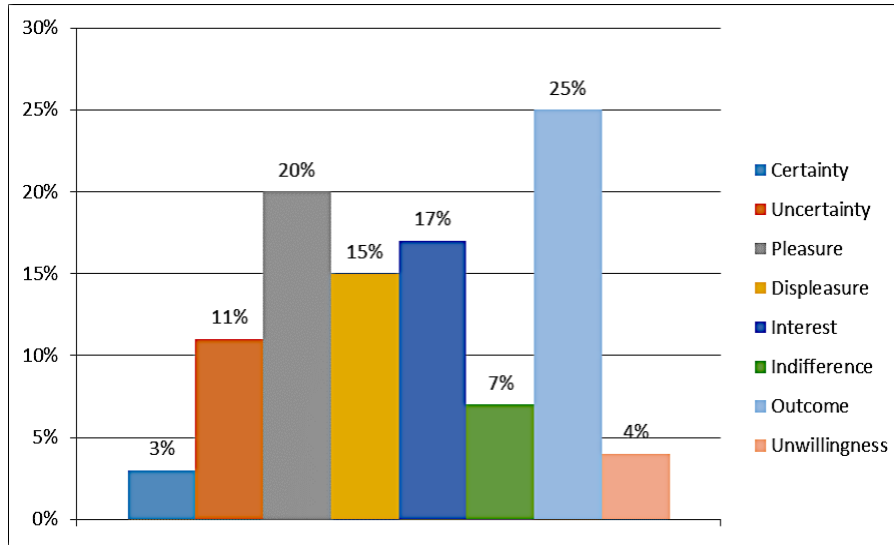
With the help of these scales it was determined which subjects see the image of the university.

The selected bipolar scales, grouped according to three dimensions of the semantic differential, are presented in Table 02.

**Table 02.** Bipolar scales allocated in dimensions of The Osgood semantic differential

Measuring the Semantic Differential	Scale	
	Positive pole	Negative pole
Strength	Confidence	Uncertainty
Evaluation	Pleasure	Discontent
Activity	Outcome	Reluctance
Activity	Interest	Indifference

The results of the survey are clearly shown in Fig. 02 Generally respondents see the university's image as positive.



**Figure 02.** Results of the study

This study was a continuation of the process of studying the image of the university described (Leontieva & Ababkova, 2018). In the framework of the modified ZMET concept students (a sample of 94 people) were offered to select and structurally describe their illustrative perception of the university. The processing was also carried out using a semantic differential. The results of that research were as follows: respondents perceive the university brand as strong (with strong traditions), active (contributing to the realization of their potential and achieving leadership) and positively evaluate it (feel united with the university, their involvement in his life).

We see that the results of these two studies do not contradict each other, and also agree with the study of student satisfaction presented in (Razinkina, et al., 2018).

Generally, the image of the Peter the Great St. Petersburg Polytechnic University is seen by the students as positive as indicated by the fact that the first positions in assessing the respondent's answers take a positive scale and, accordingly, a positive pole. However, there are such scales as "Dissatisfaction", which ranks 4th in size and is 15%. This indicator indicates that the university needs efforts and activities to improve and maintain the image.

## 7. Conclusion

To draw the conclusion, it is necessary to mention that the results of this study are a platform for further studying the image of SPbPU in order to change the characteristics of the university. This methodology allows a large number of respondents to be covered in a short time, and also provides an opportunity to get a basis for formulating constructive recommendations for adjusting the image of the university, and in the future it will allow to analyse and determine the orientation of young people to receive vocational education, by examining the university's vision at the time of enrolment and graduating, by analysing the emotional attitude to the subjects taught.

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