MODERN APPLIED RESEARCHES OF PERSONALITY

DOI: 10.23888/humJ20193524-537

ПРЕДСТАВЛЕНИЯ СОВРЕМЕННЫХ СТУДЕНТОВ ОБ ОБРАЗЕ ИНЖЕНЕРА

MODERN STUDENTS' IDEAS ABOUT THE IMAGE OF AN ENGINEER

Каплина С.Е.

Забайкальский государственный
университет

Аннотация:

В статье представлена попытка определения представлений современных студентов об образе инженера. Сегодня инженер – это профессионал высокого уровня, который не только обеспечивает работу сложнейшего оборудования, конструирует современную технику и машины, но и формирует окружающую действительность. В связи с этим, необходимо четко понимать какие требования к личности инженера предъявляет государство, и какими инженерами видит себя новое поколение студентов, чтобы определить пути подготовки квалифицированных кадров, востребованных на рынке труда.

Принимая во внимание положения системно-деятельностного подхода, был выделен набор постоянных элементарных структурных единиц, присущих новому поколению студентов XXI века и отражающий не только

Kaplina S.E.

Transbaikal
State University

Abstract:

The article has presented an attempt to determine the ideas of modern students about the image of an engineer. Today an engineer is a highly skilled professional who not only provides the work of the most complicated equipment, constructs technical devices and machines, but also forms the environment. The author's intention is to clearly understand what requirements to the engineer's personality are made by the state, and how the new generation of students see ahead an engineer themselves as, in order to determine the ways of training qualified engineering staff in demand for the labor market.

Taking into account the provisions of the system-activity approach, a set of permanent elementary structural units has been identified, which are inherent to the new generation of students of the XXI century and reflect not

личностные и профессиональные качества будущих инженеров, но и позволяют объяснить сложившийся у нового поколения студентов образ личности современного инженера. С целью подтверждения выдвинутых предположений были проведены диагностические срезы и самодиагностика субъектности будущих инженеров, а также анкетирование и тестирование, контрольные точки которых пришлись на 2001, 2004, 2010, 2018 гг. Всего в динамике было обследовано 636 студентов ФГБОУ ВО «Забайкальский государственный университет».

Исходя из полученных результатов, было проведено ранжирование личностных, деловых и профессиональных качеств инженера, которые легли в основу составления образа личности инженера с позиции современных студентов. Данный «образ» помогает понять: каким видят себя в будущей профессии современные студенты; как этот образ коррелирует с потребностями современного общества и госзаданием РФ по подготовке специалистов технического профиля; заставляет задуматься о существенных изменениях в методиках обучения и о повышении престижа профессии инженера среди современных студентов.

Ключевые слова:

новое поколение, личность, образ инженера, современный студент, личностные, деловые и профессиональные качества.

only personal and professional qualities of future engineers, but also allow to explain the image of the modern engineer's personality in the minds of the new generation of students. In order to confirm the assumptions made, diagnostic and self-diagnostic assessments were carried out, as well as questionnaires and tests, the control points of which were carried out in 2001, 2004, 2010, and 2018. In total, 636 students of FSBEI "Transbaikal State University" were examined in dynamics.

Thus, based on the obtained results, the ranking of personal, business and professional qualities of an engineer has been conducted. According to it the image of an engineer from the position of modern students has been compiled. This "image" helps to understand: how modern students see ahead themselves in the future profession; how this image correlates with the needs of modern society and the state assignment of the Russian Federation for training technical specialists and also makes think about significant changes in teaching methods and increasing the prestige of the engineering profession among modern students.

Keywords:

new generation, personality, image of an engineer, modern student, personal, business and professional qualities.

Relevance

The modern world is changing, transforming under the influence of global economic, political, cultural and religious integration and unification processes. The innovativeness of society demonstrates new demands for a specialist in the technical field. The personality is a complex multidimensional structure that characterizes a person as a social unit, in which a special place is given to direction in general and value orientations in particular [1]. At the present stage, society needs a different type of an engineer personality: flexible, able to adapt quickly to any changes, independent, initiative.

According to the opinion of the President of Russia V.V. Putin, the engineer of

the XXI century is a high level professional, who not only provides the work of the most complicated equipment, not only constructs modern equipment and machines, but, in fact, forms the surrounding reality [2]. Therefore, the quality of engineering staff is becoming one of the key factors in the competitiveness of the state. This means that people should not only possess a wide range of general and special knowledge, a certain set of universal and professional competences, but also be ready to acquire new ones to adapt to dynamically changing labour market conditions.

Psychologists are sure that a person becomes a personality, acquiring qualities and abilities, opening up opportunities for life and activity in society, satisfying his / her desires and needs, in the course of life, as well as during self-development [3]. An employee will not be a professional if he or she possesses only knowledge, skills and abilities, but is not developed as a person, in general and professionally.

Everyone has biological peculiarities, but they do not constitute the essence of his / her personality. Therefore, it is necessary to develop the personality of the future engineer by improving his / her psycho-physiological, moral-motivational, social-organizational and professionally significant qualities. Mutually enriching and amplifying each other, they form an integrity, which is an important complex personal potential of a specialist.

This is what do we think about the engineer's personality from the point of view of the requirements of the changing world, which includes a new, another young generation of students of the XXI century, formed under the influence of these very changes. What do they think about the personality of a modern engineer? The search for the answer to this question was the **purpose of our research**.

Materials and methods

The methodological basis of the research is represented by a set of scientific concepts and approaches to the training of modern specialists. Thus, the reliance on the concept of consciousness and activity unity (S.L. Rubinstein) allowed to determine the main personal characteristics that make up the image of a modern engineer. According to S.L. Rubinstein, "the subject is not only found and manifested in his acts, in the acts of his creative amateur activity; he is created and defined in them. Therefore, it is possible to determine what he is by what he does; it is possible to define and form him by the direction of his activity" [4, p. 165]. The scientist also noted that "in the mental image of a person there are different spheres, or features that characterize different sides of a person; but despite of all their diversity, difference and inconsistency, the main properties, interacting with each other in a specific human activity and interpenetrating into each other, they are connected in the unity of a person" [5, p. 102].

Thanks to the ideas of the personal-activity approach, the foundations of which are laid in the works of L.S. Vygotsky, A.N. Leontiev, S.L. Rubinstein, B.G. Ananiev,

I.A. Zimnyaya, the personality was considered by us as “a subject of activity which, being formed in activity and in communication with other people, determines the nature of this activity and communication...”. [6, p. 244].

Taking into account the main provisions of the system-structural approach [7], the author has revealed a set of permanent structural components and links between them, which served as a reference point for creating an image of a modern engineer based on the ideas of a new generation of students. This approach helps to focus on the study of the engineer's image-model and the place of elements in it, rather than the elements as such.

The conclusions of classics of psychology have formed the foundation and developed the basic directions for studying the problems connected with professional training and education of students, development of a student's personality, formation of his professionalism and also seem to be important for our research. In particular, we were guided by the ideas of the outstanding scientist A. Maslow, who in his scientific researches described and classified the groups of a person's needs, as well as the dynamics of transformation of the main ones. Moreover, A. Maslow concludes that in order to satisfy the most powerful and priority needs of an individual, he or she has to meet the needs of the hierarchy that follow them and require their satisfaction. When these needs are also met, the transition to the next level of needs that determine the behaviour of a person is carried out [8].

Thus, taking into account motivational and value needs of a new generation of students, their classification was carried out, regularities of motives appearance were established, dependence of students' choice of personal, business and professional characteristics of an engineer due to social and political conditions of his / her personal development was revealed.

Results and Discussion

Students are a socio-demographic group of young people studying in higher education institutions. Essential social feature of the students is their closeness to the nature of activity, interests, orientations to the social group of intellectuals and specialists. Students are heterogeneous not only in terms of social origin and demographic characteristics, but also in terms of professional peculiarities close to those of the corresponding groups of specialists [9].

The new generation of students of the XXI century is presented by those who were born between 1990 and 2000. A part of them – 26% (on the example of the study of students' groups occupancy statistics at technical faculties of ZabSU, Chita) is the number of students of secondary vocational education, 13% are those who have served in the army, 61% are former students (including 37% of urban schoolchildren, 24% are students of village schools). As our statistical analysis shows, the student body is characterized by different social origin, unequal material opportunities, but the

students who make it, are united by a common type of activity and form a certain social and professional group. The general activity in combination with the territorial concentration generates in students the community of interests, group consciousness, specific subculture and way of life, and it is supplemented and strengthened by age homogeneity, which other socio-professional groups do not have [10].

A person's movement in life has a direct movement to self-determination, and a person's life has a relationship between identity and social norms and measures. Gradually, a person "organizes", arranges events in accordance with the logic of his / her life, while realizing the potential opportunities provided to him / her. In other words, he / she is increasingly becoming a subject of his / her life activity [11]. Subjectivity is manifested in a person's ability to act in a mobile way, which can be considered as a criterion of his / her mental and social maturity, manifested when a person has the ability to carry out a personal understanding of a set of external conditions and circumstances of life and a readiness to overcome possible external and internal difficulties [12].

Proceeding from the above and based on the system-activity approach, we have identified a set of constant elementary structural units (characteristics) that correspond to the new generation of students of the XXI century. These characteristics reflect not only personal and professional qualities of future engineers, but also allow us to explain the image of the modern engineer that has developed in the mind of the new generation of XXI century students.

Observation and analysis of the life activity of the new generation students showed that in general they have the following characteristics:

- Netaholic. On average, students spend 6.5 hours every day in the information network. They listen to and record music, watch movies, play video games, watch news media, create and replenish their Internet content, communicate with peers, etc. Information and communication technologies (ICTs) alone do not surprise and delight the new generation of students; they are not interested in how ICTs are organized and operate. They are attracted by the possibility of using ICTs as a tool to achieve their goals.

- The desire to keep the situation under control. The students of the new generation do not want to be bound by the traditional timetable, as this limits their freedom. They are convinced that it is not necessary to be in the classroom or office to work in order to learn [13]. Instead, they prefer to use ICT to study or work at a time when it is convenient for them, and to remotely access the network at any time, thus determining the "balance" between study / work and free time and their own desire.

- The desire to make your own choices. Being in the conditions of project activity realization, students of the new generation apply ICT with pleasure for search of new decisions of problems of the project based on creativity and originality. The opportunity to alternate traditional methods and techniques of ICT contribute to high

productivity in the work on the project and a strong interest in it.

- The desire to communicate and work in a group. Inevitably, being absorbed by the World Wide Web, students of the new generation constantly need to communicate. In life, they travel together, shop and spend their leisure time. While online, they do not miss the opportunity to compare themselves with other people, to join communities of interest [13]. Feeling themselves a member of the community, accepting and sharing what they have learned from others, they try to cultivate new personal qualities and correspond to them.

- Practicality in the use of digital technologies. The new generation of students is reliably surrounded by digital technology. ICTs have become a part of their lives, and the ease of access attracts them. The new generation of students can do things with mobile phones, tablets and other portable devices that the use of a desktop computer cannot give them. They invented their own language, which consists of acronyms such as “LOL” (laughs), “ATM” (at the moment), “BTW” (by the way) and other Internet slang [14]. Today's ICTs allow a new generation of students to express their opinions in ways that were not previously available to them.

- Ability to take risks. Suffice it to recall the Internet revolution that companies starting to offer and sell goods and services over the Internet experienced in the 1990s. It was then that the new generation acted according to the principle: “If I fail now, I will try again” [14]. As a result, some made a profit, while others tried again and again. Their parents had a completely different point of view and probably would never have chosen this path.

- Egocentrism. The phenomenology of egocentrism (T.I. Pashukova) is represented by the personal pronoun “I” and derivatives “my”, “me” and “mine” formed from it [15]. The new generation of students in their daily life and activities is guided by self-centered motivation, aimed at obtaining benefits in anything. They strive to get maximum freedom, to get out of control of parents and others, to be independent and self-dependent. The new generation of students wants to have more free time for themselves, to realize their ambitions on their own terms.

The specifics and professional features of the engineer's activity require certain qualities of personality and special abilities. According to V.D. Shadrikov [16], the qualities necessary for a person to perform professional activity successfully are the individual qualities of the subject of activity, which influence the activity efficiency and the result of its mastering. In our research we meant a set of personal, business and professional qualities of an engineer, which are able to determine the efficiency of activity [17].

In order to identify the personal, business and professional qualities of the future modern engineer, as well as the attractive aspects of the engineering profession, a questionnaire and testing were conducted, the control points of which took place in 2001, 2004, 2010, and 2018 (Tables 1-4). Totally 636 students of the Transbaikal State

University were examined in real-time mode.

Table 1.

Comparative analysis of motivational and value needs of the new generation of students in relation to engineering activities

№ n/o	Attractions of the engineering profession	% 2001 г.	% 2004 г.	% 2010 г.	% 2018 г.
1	Easy access to employment	-	90,4	87,2	73,1
2	Opportunity to have an interesting job	83,1	88,1	82	90,3
3	Considered prestigious among acquaintances	65,6	83,6	84	87,6
4	Opportunity to achieve professional success	78,1	81,3	88,7	92,4
5	Opportunity to develop professionally significant qualities	61,5	74	80	87,9
6	Provides creative initiative	74,4	72,7	75,6	88,4
7	Opportunity to demonstrate individuality	68,7	70,6	71,3	85,4
8	Possible requalification	-	65,7	82	95,3
9	Provides an opportunity to move quickly up the career ladder	-	64,6	70,3	86,2
10	Ensures professional growth	61,2	52,2	54,4	77,3
11	Ability to work in a team	50,4	50,5	53,7	67,8
12	Requires intellectual and cultural development	40,5	48,4	58,8	78,9
13	Allows the use of organizational skills	35,8	40	47,1	52
14	High public importance	43,7	37,5	40,3	69,8
15	Opportunity to engage in science	70	37,2	41,7	56,4
16	Allows to achieve social approval	59,4	35,1	44,7	61,7
17	Ability to work abroad	-	29,3	51,2	83,4
18	Opportunity to benefit people	35	25,1	45,8	88,6
19	Provides a high level of wages	33,7	20,6	66,5	85,2
20	Opportunity to use working time for personal purposes	16	12,5	17,4	15,2

Note: 636 people participated in the ranking. Each respondent was allowed to note an arbitrary number of positions.

Table 2.

Ranking distribution of personal qualities inherent in modern engineer from the students' point of view

Qualities of a person	Ranking Students			
	2001 г	2004 г	2010 г	2018 г
Broad scholarship	1.	1.	3.	7.
Common culture, cultural requirements and interests	3.	3.	2.	1.
Need for and readiness for self-education	7.	5.	4.	2.
Sociability	2.	4.	5.	6.
Sensitivity, responsiveness	9.	8.	10.	10.
Independence	5.	6.	1.	5.
Emotional and neuro-psychological stability	8.	9.	6.	3.
Ambitiousness, resoluteness	4.	7.	7.	4.
Trustfulness	11.	11.	11.	11.
Diligence	10.	2.	8.	8.
Sense of humour	6.	10.	9.	9.

Note: Respondents were offered a certain list of qualities and possibility to rate them on a scale of 10 points depending on the importance for the engineer

Table 3.

**Ranking distribution of business qualities inherent in modern engineer
from the students' point of view**

Qualities of a person	Ranking			
	Students			
	2001 г	2004 г	2010 г	2018 г
Ability to manage people	2	3	4	1
Ability to stand one's ground	3	4	3	2
Consistency of aim	4	5	1	3
Orderliness	5	1	5	5
Self-discipline	1	2	7	7
Obligingness	7	8	6	6
Ability to work in a team	6	6	8	8
Adherence to principles	8	7	2	4

Note: Respondents were offered a certain list of qualities and possibility to rate them on a scale of 10 points depending on the importance for the engineer

Table 4.

**Ranking distribution of professional qualities inherent in modern engineer
from the students' point of view**

Qualities of a person	Ranking			
	Students			
	2001 г	2004 г	2010 г	2018 г
High level of professional training	1	1	2	4
Presentable appearance	9	9	9	3
Analytical thinking	3	2	3	1
Ability to use ICT	8	7	5	2
Foreign language skills	7	8	8	7
Working efficiency	2	3	6	8
Ability to make quick decisions	5	4	1	5
Creativity	4	5	4	6
Ability to get on well with people	6	6	7	9

Note: Respondents were offered a certain list of qualities and possibility to rate them on a scale of 10 points depending on the importance for the engineer

The results have showed that today the majority of respondents believe that engineering activity opens up opportunities for them to re-qualify (95.3%) within their industry, allows them to achieve professional success (92.4%), opens the way to exhibit individuality (85.4%) and creative initiative (88.4%).

At the same time, according to students' opinion, a modern engineer should be culturally and mentally educated, emotionally and neuro-psychologically stable to various unforeseen circumstances, be ambitious and decisive in making responsible professional decisions and constantly feel the need for self-education, both professionally and personally.

Analyzing the engineer's personality from the standpoint of his business qualities, the students emphasized the ability to manage people, negotiate with them

and make promising professional contacts. At the same time, it is especially important that a modern engineer is able to stand on his own views and positions, as well as the interests of his team, to be purposeful in achieving the goals and solving the set of professional tasks.

Discussing the professional component of the engineer's personality, students first of all singled out his ability to analytical thinking. The majority of respondents pointed out that, being a professional, an engineer should be able to work with a large amount of data, compare it and find interrelations, be consistent and set priorities correctly. In his work, the engineer makes qualified use of the ICT possibilities, critically thinks and always has alternative options for solving professional problems in reserve. It is also interesting that the new generation of students, in contrast to students of 2001, 2004, 2010, endues the modern engineer with such a professional quality as an ability to look presentable. A person's appearance is a significant determinant of his / her personal and professional success [18]. Focusing on the appearance of an engineer shows that modern students have such a quality as ambition, which psychologists often associate with the pursuit of honors, desire for career growth and achievement of high positions.

Thus, we have come to the point when, relying on the results of humanistically oriented diagnostics and self-diagnostics of the future engineer's subjectivity, it is possible to get an objective idea of the engineer's personality from the modern students' point of view (Fig. 1).

Figure 1.

The image of an engineer based on the ideas of modern students

Conclusions

Taking into account the current trends in the development of society and education in the context of globalization, it is possible to say that today an individual and a specialist are inseparable phenomena. The one who possesses professional qualities is not an abstract specialist, but a specific personality with his or her inner life, emotional and spiritual sphere, psychophysical abilities [12].

The results obtained through observation, conversations, questionnaires, and diagnostic tests showed that the views of students of the early 2000s and the present generation on the image of a modern engineer only partially converge. Modern students find life unpredictable. Under the impression of what they have seen, the new generation of students begins to view their lives differently. They watch their parents work hard, waiting for a certain social status or level of success, which comes to them only in adulthood and it burdens them. They surround themselves maximally with ICT, plunging into the world of virtual opportunities, where everything happens «in one click» and try to transfer such a scenario into real life.

If we look at the resulting image of the modern engineer through the eyes of students, it is easy to see that the ranking of personal, business and professional qualities has changed. It becomes obvious that deep knowledge of the subject of professional activity has given way to such qualities as the ability to navigate in the situation, make non-standard decisions, manage people bordering on the egocentric orientation of the person, which is manifested in the desire of a person to satisfy own desires, defend the goals without proper coordination of these aspirations with other people. Interviews with the respondents also revealed the fact that they believe that a professional engineer has a certain power, because it is the power and good salary that allow him / her to get the supposed freedom. To achieve this goal, they are ready and able to adapt quickly and successfully to the new technological conditions by mastering new techniques and technologies, acquiring the missing knowledge and skills, as well as the ability to switch to another type of activity.

Summarizing the abovementioned, one should think about, on the one hand, essential changes in teaching methods, and, on the other hand, about such an increase in the prestige of the engineering profession, which today is not observed in any other country in the world.

There is no conflict of interests.

СПИСОК ЛИТЕРАТУРЫ:

1. Лесин А.М. Особенности ценностных ориентаций студентов-первокурсников // Личность в меняющемся мире: здоровье, адаптация, развитие: сетевой журн. 2018. Т.6, №4(23). Доступно по: <http://humjournal.rzgmu.ru/art&id=347>. Ссылка активна на 26 августа 2019.

REFERENCES:

1. Lesin A.M. Peculiarities of first-year students' value orientations. *Personality in a changing world: health, adaptation, development: a network journal*. 2018;6(4). Available at: <http://humjournal.rzgmu.ru/art&id=347>. Accessed: 26 August 2019 (in Russ).

2. Заседание совета по науке и образованию: стеногр. отчет о заседании Совета при Президенте по науке; 23 июня 2014 года. Доступно по ссылке:
<http://kremlin.ru/events/president/news/45962>. Ссылка активна на 11 мая 2019.
3. Абульханова-Славская К.А. Типологический подход к личности профессионала. В кн.: Психологические проблемы формирования личности профессионала. М.: МГУ; 1991. С. 9-66.
4. Рубинштейн С.Л. Проблемы психологии в трудах Карла Маркса. М.: РИПОЛ; 1933.
5. Рубинштейн С.Л. Основы общей психологии. В2-х т. Т.2. Москва; 1989.
6. Зимняя И.А. Личностно-деятельностный подход как основа организации образовательного процесса. Доступно по ссылке:
<http://psychlib.ru/mgppu/ZOsv-01/ZLD-244.HTM#p244>. Ссылка активна на 24 июня 2019.
7. Щедровицкий Г.П. Принципы и общая схема методологической организации системно-структурных исследований и разработок. М.: Наука; 1981.
8. Маслоу А. Мотивация и личность. СПб.: Питер; 2008.
9. Вишневецкий Ю.Р., Шапко В.Т. Социология молодежи. Екатеринбург: ГОУ ВПО УГТУ-УПИ; 2006.
10. Сергеев Р.В. Молодежь и студенчество как социальные группы и объект социологического анализа // Вестник Адыгейского государственного университета: сетевое электронное научное издание. 2010. №2. Доступно по ссылке:
http://www.vestnik.adygnet.ru/files/2010.2/948/sergeev2010_2.pdf. Ссылка активна на 22 мая 2019.
11. Хоршева О.В. Педагогические условия формирования мобильности младших школьников в процессе обучения. Дис. ... канд. пед. наук. Рязань; 2003.
12. Каплина С.Е. Профессиональная мобильность: Основы. Концепции. Технологии. Germany: LAMBERT Academic Publishing; 2011.
13. Каким должен быть современный студент 21
2. Meeting of the Council on Science and Education: verbatim report of the meeting of the Presidential Council on Science; June 23, 2014. Available at: <http://kremlin.ru/events/president/news/45962>. Accessed: 11 May 2019 (in Russ).
3. Abul'khanova-Slavskaya K.A. Tipologicheskii podkhod k lichnosti professionala. In: *Psikhologicheskie problemy formirovaniya lichnosti professionala*. Moscow: MGU; 1991. (in Russ).
4. Rubinshtein S.L. *Problemy psikhologii v trudakh Karla Marksa*. Moscow: RIPOL; 1933. (in Russ).
5. Rubinshtein S.L. *Osnovy obshchei psikhologii*. In 2 volumes. Vol.2. Moscow; 1989. (in Russ).
6. Zimnyaya I.A. *Lichnostno-deyatelnostnyi podkhod kak osnova organizatsii obrazovatel'nogo protsessa*. Available at: <http://psychlib.ru/mgppu/ZOsv-01/ZLD-244.HTM#p244>. Accessed: 24 June 2019. (in Russ).
7. Shchedrovitskii G.P. *Printsipy i obshchaya skhema metodologicheskoi organizatsii sistemno-strukturnykh issledovaniy i razrabotok*. M.: Nauka; 1981. (in Russ).
8. Maslou A. *Motivatsiya i lichnost'*. Saint Petersburg: Piter; 2008. (in Russ).
9. Vishnevskii YuR, Shapko VT. *Sotsiologiya molodezhi*. Ekaterinburg: GOU VPO UGTU-UI; 2006. (in Russ).
10. Sergeev RV. Molodezh' i studenchestvo kak sotsial'nye gruppy i ob'ekt sotsiologicheskogo analiza // *Vestnik Adygeiskogo gosudarstvennogo universiteta: setevoe elektronnoe nauchnoe izdanie*. 2010. №2. Available at: http://www.vestnik.adygnet.ru/files/2010.2/948/sergeev2010_2.pdf. Accessed: 22 May 2019. (in Russ).
11. Khorsheva OV. *Pedagogicheskie usloviya formirovaniya mobil'nosti mladshikh shkol'nikov v protsesse obucheniya* [dissertation]. Ryazan'; 2003. (in Russ).
12. Kaplina SE. *Professional'naya mobil'nost': Osnovy. Kontseptsii. Tekhnologii*. Germany: LAMBERT Academic Publishing; 2011. (in Russ).
13. *Kakim dolzhen byt' sovremennyyi student 21 veka?* Available at: https://vk.com/topic-42386529_27110275?offset=40. Accessed: 23 May

века? Доступно по ссылке: https://vk.com/topic-42386529_27110275?offset=40. Ссылка активна на 23 мая 2019.

14. Learning in the 21st century. Teaching today's students on their terms. International Education Advisory Board. Certiport; 2007.

15. Пашукова Т.И. Эгоцентризм, основные психологические характеристики, закономерности и механизмы формирования и коррекции. Дис. ... д-р. псих. наук. Киев; 2002.

16. Шадриков В.Д. Новая модель специалиста: инновационная подготовка и компетентностный подход // Высшее образование сегодня. 2004. № 8. С. 26-31.

17. Татьянаенко С.А. Профессионально важные качества личности современного инженера. В сб.: Актуальные вопросы педагогики и психологии: материалы международной заочной науч.-практич. конф. 1 августа 2011. Доступно по ссылке:

sibac.info/conf/pedagog/vii/36721. Ссылка активна на 20 мая 2019.

18. Недбаева С.В., Котова И.Б., Филин М.М. Влияние внешности как детерминанта личностной и профессиональной успешности человека // Вестник «Здоровье и образование в XXI веке». 2018. Т. 20, № 6. Доступно по ссылке: <http://dx.doi.org/10.26787/nydha-2226-7417-2018-20-6-86-92>. Ссылка активна на 21 мая 2019.

СВЕДЕНИЯ ОБ АВТОРАХ:

Каплина Светлана Евгеньевна – доктор педагогических наук, профессор, заведующий кафедрой иностранных языков и межкультурной коммуникации Забайкальского государственного университета; 672039, г. Чита, ул. Александрово-заводская, 30. email: kse2000@list.ru.

ДАТА ПОСТУПЛЕНИЯ: 28.06.2019

ДАТА ПРИНЯТИЯ В ПЕЧАТЬ: 26.08.2019

ССЫЛКА ДЛЯ ЦИТИРОВАНИЯ:

Каплина С.Е. Представления современных студентов об образе инженера // Личность в меняющемся мире: здоровье, адаптация, развитие: сетевой журн. 2019. Т. 7, № 3 (26). Доступно по ссылке: <http://humjournal.rzgmu.ru/art&id=393>. Ссылка активна на чч.мм.гггг. doi: 10.23888/humJ20193524-537

2019. (in Russ).

14. Learning in the 21st century. Teaching today's students on their terms. International Education Advisory Board. Certiport; 2007.

15. Pashukova T.I. Egotsentrizm, osnovnye psikhologicheskie kharakteristiki, zakonomernosti i mekhanizmy formirovaniya i korrektsii [dissertation]. Kiev; 2002. (in Russ).

16. Shadrikov V.D. Novaya model' spetsialista: innovatsionnaya podgotovka i kompetentnostnyi podkhod // Vysshee obrazovanie segodnya. 2004; 8: 26-31. (in Russ).

17. Tat'yanenko S.A. Professional'no vazhnye kachestva lichnosti sovremennogo inzhenera. In: Aktual'nye voprosy pedagogiki i psikhologii: materialy mezhdunarodnoi zaочноi nauch.-praktich. konf. 1 August 2011. Available at: <https://sibac.info/conf/pedagog/vii/36721>. Accessed: 20 May 2019. (in Russ).

18. Nedbaeva S.V., Kotova I.B., Filin M.M. Vliyaniye vneshnosti kak determinanta lichnostnoi i professional'noi uspekhnosti cheloveka // Vestnik «Zdorov'e i obrazovanie v XXI veke». 2018; 20 (6). Available at:

<http://dx.doi.org/10.26787/nydha-2226-7417-2018-20-6-86-92>. Accessed: 21 May 2019. (in Russ).

INFORMATION ABOUT AUTHORS:

Kaplina Svetlana Evgenievna – doctor of science (Pedagogy), professor, head of Foreign Languages and Intercultural Communication department; Transbaikal State University; 672039, Chita, 30 Aleksandro-zavodskaya street. email: kse2000@list.ru.

PAPER RECEIVED: 28.06.2019

PAPER ACCEPTED: 26.08.2019

REFERENCE FOR CITING:

Kaplina S.E. Modern students' ideas about the image of an engineer. Personality in a changing world: health, adaptation, development: a network jourн. 2019; 7 (3). Available at: <http://humjournal.rzgmu.ru/art&id=393>. Accessed: dd Month yyyy. doi: 10.23888/humJ20193524-537