

## The Top 50 Universities for Psychology: Educational and Future Career Trends for Students

# Las mejores 50 universidades para la psicología: tendencias educativas y futuras carreras para los estudiantes

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#### **ABSTRACT:**

The object of this study is a comparative analysis of the world's leading universities in order to identify the main trends in the development of psychological science and practices, educational trends and future career opportunities in the field of psychology. The initial information used was taken from the specialized international website QS World University Rankings (by subject "Life Sciences & Medicine subjects: Psychology"). Additionally, a comparative analysis was conducted based on information provided by universities from their official websites in the area of "Psychology". Results and discussion. In current world rankings, the top ten universities consist of universities in the United States and Great Britain. The advantage of the Anglo-Saxon model of education in the world market in modern psychology is presented. The features of educational programs in universities that have successfully implemented psychological programs are: 1) in the uniqueness and originality of psychology programs, which with significant advances set trends in psychological science and practice are implemented by the top ten ranking universities. 2) The fact that in top universities, psychology is studied in separate and specific facilities of psychology that have a number of

#### **RESUMEN:**

El objetivo de este estudio es realizar un análisis comparativo de las principales universidades del mundo para identificar las principales tendencias en el desarrollo de la ciencia y las prácticas psicológicas, las tendencias educativas y las futuras oportunidades de carrera en el campo de la psicología. La información inicial utilizada fue tomada del sitio web internacional especializado QS World University Rankings (por materia "Ciencias de la vida y temas de medicina: Psicología"). Además, se realizó un análisis comparativo basado en la información proporcionada por las universidades desde sus sitios web oficiales en el área de "Psicología". Resultados y discusión. En el ranking mundial actual, las diez mejores universidades consisten en universidades en los Estados Unidos y Gran Bretaña. Se presenta la ventaja del modelo de educación anglosajón en el mercado mundial de la psicología moderna. Las características de los programas educativos en universidades que han implementado con éxito programas psicológicos son: 1) en la singularidad y originalidad de los programas de psicología, que con avances significativos establecen tendencias en la ciencia y la práctica psicológicas implementadas por las diez mejores universidades de clasificación. 2) El

resources within the framework of the University 3.0 concept. 3) In the department of psychology, students are trained in scientific laboratories, which directly connect science, education and practice. 4) The top 50 universities actively offer ways of employment and promotion to young professionals, especially in the field of scientific careers. Conclusion. The authors suggest that Russian universities can develop in two directions with a focus on top universities: 1) to support the already existing world trends shared by 50 top universities in the subject of "Psychology"; 2) to offer new directions through the development of their own unique products, which are strong in traditional Russian scientific and educational sphere (psychophysiology, IT-psychology, psychology of morality and spirituality, psychology of security). Keywords: psychology education research, QS Rankings by subject, psychology degrees, quality of education.

hecho de que en las principales universidades, la psicología se estudia en instalaciones separadas y específicas de la psicología que tienen una serie de recursos en el marco del concepto de la Universidad 3.0. 3) En el departamento de psicología, los estudiantes reciben capacitación en laboratorios científicos, que conectan directamente la ciencia, la educación y la práctica. 4) Las 50 mejores universidades ofrecen activamente formas de empleo y promoción a jóvenes profesionales, especialmente en el campo de las carreras científicas. Conclusión. Los autores sugieren que las universidades rusas pueden desarrollarse en dos direcciones con un enfoque en las mejores universidades: 1) para apoyar las tendencias mundiales ya existentes compartidas por las 50 mejores universidades en el tema de "Psicología"; 2) para ofrecer nuevas direcciones a través del desarrollo de sus propios productos únicos, que son fuertes en la esfera científica y educativa tradicional rusa (psicofisiología, IT-psicología, psicología de la moralidad y la espiritualidad, psicología de la seguridad). Palabras clave: investigación en psicología de la educación, clasificaciones QS por materia, grados de

psicología, calidad de la educación.

### **1. Introduction**

The current social and economic situation, within which globalization and the internationalization of education is taking place, is not only a condition universities use to ensure themselves the right to be considered the best, but also acts as a kind of criterion for testing their strength, as it implies that there will be evaluation with the help of international, open rating systems (Olcay, Bulu, 2017). Universities inevitably became participants in a continuous race of competitive struggle (Li, 2016). Does this means that the one who does not come first will fail to have a competitive advantage, is inferior according to various parameters and, in simple language, remains behind the curb? Is it really so?

Despite the fact that, according to E. Toffler, education is at a penultimate place of flexibility, yielding only to jurisprudence and religion, we are already in this world; we are already at the root of colossal changes, so we have to adopt new rules of the game (Toffler & Toffler, 2007). Today, the world economy is transitioning towards the highest stage of development in the post-industrial economy – the "knowledge economy". In the process of systemic transformation, the main factor of development is human capital. According to E. Toffler, the transition to a new, post-industrial type of society has occurred in the last third of the 20th century. The third "wave", in his estimation, will completely replace the second by 2025.

Under these new conditions, science that is realized in universities, have becomes an immediate productive force, a factor of development and self-preservation in society. New type of drivers in the world's economy are high-quality education and human capital, effective fundamental science, production of knowledge and high technologies, information society or knowledge society (Khamidov, 2017).

Higher education in modern times is a key area in national identity (Medvedev, Pursiajnen, 2005). Given the emergence of a new concept for the development of universities, "University 3.0" simply having a name no longer provides the university a place in the ranking. This implies a complete transformation of the educational system (Lane, Johnstone, 2013). This is a concept that is very different from its predecessors: "University 1.0" and "University 2.0". The first was focused on education, the translation of knowledge, the search for talent and training. The second concept solved the task of generating new knowledge through research activities demands by the economy.

Now, it is not enough for universities to remain exclusively scientific and educational. "University 3.0" implies the use of universities as the basis for creating an integrated entrepreneurial ecosystem, where universities play a key role as providers of innovation and drivers of economic development (Lane, 2012). Universities which rank in the top 10 of the world educational rankings meet the requirements of the "University 3.0" concept (Bolman, Gallos, 2011). In the race for leadership, the remaining universities should create an educational model that really meets the requirements of the new concept, and not "increase likes" the rating artificially through the purchase of "star" professors, the creation of a false structure, and so on.

How can we understand what measures need to be taken to improve the effectiveness of the university and its prestige in the world community? Is it about improving the quality of educational programs, research, teaching, business processes in the context of globalization and the internationalization of education?

In this case, rankings are becoming increasingly important, as countries conduct regular studies to assess their own universities in the world's educational ratings (Rust, Kim, 2016). The ratings are organized in such a way that not only provides information on the academic components of the university, but also stimulate institutional reform due to the growing importance of the university in the global rankings (Gibson, Anderson, Tressler, 2014).

The emergence of global ratings characterizes a shift from national to global geopolitics and geo-economics in higher education. The analysis of certain ranking criteria in the ratings suggests that targeting "by subject" will lead to the creation of a diverse landscape for higher education that extends to more than just Europe and the United States (Joens, Hoyler, 2013). Today the most authoritative global rating agencies are: in Europe - QS World University Rankings and Times Higher Education, in the USA - U.S. News, in Asia – ShanghaiRanking.

QS World University Rankings is one of the most influential global university rankings. It includes research and rating of the top 500 best universities in the world in terms of their achievements in the field of education and science, as well as university rankings for individual disciplines. This rating was developed in 2004 by the British consulting company Quacquarelli Symonds (QS) in conjunction with the British edition of Times Higher Education. Until 2010 it was known as The World University Rankings. In 2010, this global rating system was divided into two: the "Times Higher Education" edition issues the rating of the best universities in the world. "The World University Rankings" in conjunction with Thomson Reuters, and Quacquarelli Symonds continues to issue a rating called QS World University Rankings. These rating evaluates universities using certain parameters that cover key strategic missions of the universities according to their significance in the world, namely: the activity and quality of its research activities, the opinion of employers and career potential, teaching and internationalization.

The media company "U.S. News & World Report" publishes ratings given by "U.S. News Best Global Universities rankings". It was published in 2014 and is issued annually. Despite the fact that this rating has appeared only recently, the media company "U.S. News & World Report" has had extensive experience in issuing university ratings. This company has been ranking American universities for more than 30 years, allowing them to determine the position of American universities in the world, as well as to compare universities within the country and in individual states.

In contrast to Western rankings, the Shanghai rankings of the best universities in the world the "ARWU (the Academic Ranking of World Universities)" is compiled by the Institute of Higher Education of Shanghai Jiao Tong University (the Institute of Higher Education, Shanghai Jiao Tong University - IHE-SJTU) and the Asian agency Shanghai Ranking Consultancy. When it comes to the ranking of the best universities in the world, their rating system is one of the most influential. This rating focuses on scientific and academic activities of universities. A list of the 500 best universities, according to their rating results, have been issued yearly since 2003.

There are contradictory assessments of the world university rankings made by scholars in terms of the chosen parameters used for the standard of measurement and its ratio (Aguillo et al., 2010). Their ranking methodologies are routinely criticized for lack of future employment for graduates (Christie, 2017). Despite this, they remain powerful instruments in influencing the choice of a huge number of people for economic and political reasons

(Daraio & Bonaccorsi, 2017). In addition, it is impossible to challenge the extent of their influence on applicants, along with the usual geographical reasons for choosing a university, its attractiveness from a useful environment and its level of social environment (Drewes & Michael, 2006).

For all participants in the world educational market, ratings systems remain significant, as they are able to form individual educational programs, and form a recognizable brand for the university, as a whole, through the media (Christie, 2017). Universities whose framework is derived from the concept 3.0 become city-forming centers (Ermakova, Sukhovskaya, 2017). This means that from the very basis of these universities, an integrated entrepreneurial ecosystem is being created, where universities become providers of innovation and become business incubators. The rating system controls not only educational system but also determines flow of tourist and money within a country. Universities themselves, together with their employers, become places of new work for young talents (Ebzeeva et al., 2017). In terms of future careers, the ratings systems demonstrate the attractiveness of universities in social and economic aspects.

Different psychological areas in different territories, unlike other traditional subject, must be studied in specific universities. This process is caused by two factors: on one hand, it is connected with the very pluralistic character of psychological science, suggesting an active scientific discussion, on the other hand, it specifies of the formation of a social demand for applied knowledge and skills in future specialists in a particular region. It is important that the formation of certain scientific trends in psychology not only responds to the existing needs of the postindustrial society, but also itself is able to change them (MacKay, 2008). In this regard, the purpose of this study was to analyze the educational trends and future career opportunities in the field of psychology by using examples from one of the world's leading ratings systems.

## 2. Methodology

The authors have summarized the information presented in the QS-Rankings for 2017, taking a sample of the top 50 universities within the "Psychology" area, and also analyzed the internationalization of experiences of different countries, the features of development and the current state of their education systems. The main method used in this study is called comparative analysis. The authors use the open data from the specialized international website QS World University Rankings (by subject "Life Sciences & Medicine subjects: Psychology") as an initial information platform. The authors further carried out a comparative analysis based on the open data provided by universities from their official websites in the area of "Psychology".

The world's Top 50 Universities (by Subject – Psychology, № 1-50):
Harvard University, Department of Psychology; https://psychology.fas.harvard.edu/academics
Stanford University, Department of Psychology; https://psychology.stanford.edu/
University of Cambridge, Department of Psychology; https://www.psychol.cam.ac.uk/
University of Oxford, Department of Experimental Psychology; https://www.psy.ox.ac.uk/
University of California, Berkeley (UCB) Department of Psychology; http://psychology.berkeley.edu/
Yale University; Department of Psychology; https://psychology.yale.edu/
University of California, Los Angeles (UCLA), Department of Psychology; https://www.psych.ucla.edu/

Massachusetts Institute of Technology (MIT), Department of Brain and Cognitive Sciences; https://bcs.mit.edu/

UCL (University College London), Department of Psychology and Language Sciences; http://www.ucl.ac.uk/pals

New York University (NYU), Department of Psychology; http://www.psych.nyu.edu/psychology.html

University of Michigan, Department of Psychology; https://lsa.umich.edu/psych

University of Toronto, Department of Psychology; http://home.psych.utoronto.ca/

University of British Columbia, Department of Psychology; https://psych.ubc.ca/

University of Pennsylvania, Department of Psychology; https://psychology.sas.upenn.edu/

Columbia University, Department of Psychology; https://psychology.columbia.edu/

Princeton University, Department of Psychology; https://psych.princeton.edu/

University of Amsterdam, Department of Psychology; https://www.uva.nl/en/disciplines/psychology

The University of New South Wales (UNSW Sydney), Department of Psychology; http://www.psy.unsw.edu.au/

The University of Melbourne, Melbourne School of Psychological Sciences; http://psychologicalsciences.unimelb.edu.au/

University of Chicago, Department of Psychology; https://psychology.uchicago.edu/

King's College London, Department of Psychology; https://www.kcl.ac.uk/ioppn/depts/psychology/index.aspx

McGill University, Department of Psychology; http://www.mcgill.ca/psychology/welcome-department-psychology

The University of Sydney, School of Psychology; http://www.psych.usyd.edu.au/

Duke University, Duke Psychology & Neuroscience; https://psychandneuro.duke.edu/

The University of Queensland, School of Psychology; https://www.psy.uq.edu.au/

Northwestern University, Department of Psychology; http://www.psychology.northwestern.edu/

University of Illinois at Urbana-Champaign, Department of Psychology; http://www.psychology.illinois.edu/

University of Wisconsin-Madison, Department of Psychology; https://psych.wisc.edu/

University of California, San Diego (UCSD), Department of Psychology; https://psychology.ucsd.edu/

London School of Economics and Political Science (LSE), Department of Psychological and Behavioural Science; http://www.lse.ac.uk/PBS

University of Texas at Austin, Department of Psychology; https://liberalarts.utexas.edu/psychology/

The University of Edinburgh, Department of Psychology; https://www.ed.ac.uk/ppls/psychology

The University of Auckland, School of Psychology; https://www.psych.auckland.ac.nz/en.html

Boston University, Department of Psychological & Brain Sciences; https://www.bu.edu/psych/

Ghent University, Faculty of Psychology and Educational Sciences; https://www.ugent.be/pp/en

University of Minnesota, Department of Psychology; https://cla.umn.edu/psychology

Cornell University, Department of Psychology; https://www.psych.cornell.edu/

The University of Manchester, Faculty of Biology, Medicine and Health; https://www.bmh.manchester.ac.uk/psychology/

The University of Western Ontario, Department of Psychology; http://psychology.uwo.ca/

Pennsylvania State University, Department of Psychology; http://psych.la.psu.edu/

The University of Western Australia, School of Psychological Science; http://www.psychology.uwa.edu.au/

Monash University, School of Psychological Sciences; http://www.med.monash.edu.au/psych/

Cardiff University, School of Psychology; http://psych.cf.ac.uk/

The Australian National University, Research School of Psychology; http://psychology.anu.edu.au/

The University of Hong Kong, Department of Psychology; http://www.socsc.hku.hk/departments\_psy.html

KU Leuven, Faculty of Psychology and Educational Sciences; https://ppw.kuleuven.be/home/english

The University of Exeter, Department of Psychology; http://psychology.exeter.ac.uk/about/

National University of Singapore (NUS), Department of Psychology; http://www.fas.nus.edu.sg/psy/

Carnegie Mellon University, Department of Psychology; https://www.cmu.edu/dietrich/psychology/

University of Groningen (Nº50a), Department of Psychology; http://www.rug.nl/gmw/psychology/?lang=en

University of Virginia (Nº 50b), Department of Psychology; http://psychology.as.virginia.edu/

## 3. Results

# 3.1. The world's Top 50 Universities for Psychology: list and criteria

According to QS World University Rankings (2017), the training of future professionals in the area of psychology has been successfully implemented, by two universities in the United States of America: Harvard University (No. 1 QS) and Stanford University (No. 2 QS) which are currently two of the world's top rankings universities. The top three world universities include the British University of Cambridge (No. 3 QS). Fourth place also belongs to an institution in this country – The University of Oxford (Nº4 QS). The next four universities in the Top 10 of this rating are also the US universities: University of California, Berkeley (No. 5 QS), Yale University (No. 6 QS), University of California, Los Angeles (No. 7 QS), Massachusetts Institute of Technology (No. 8 QS). Finishing in the top ten universities in the world that successfully implement the psychological direction of training future specialists at universities in the UK and the USA: University College London (No. 9 QS) and New York

University (No. 10 QS). The Top 50 also includes universities in the United Kingdom, Canada, Australia, the USA, New Zealand, Belgium, Hong Kong, Singapore and the Netherlands.

The top ten universities in this ranking includes only universities in the United States of America and Great Britain. Only from positions 12 and above do we see, for the first time, a university from a different country. Canada hold the 12th position, and then the Netherlands (No. 17 QS), Australia (No. 18 QS), New Zealand (No. 33 QS), Belgium (No. 35 QS), Hong Kong (No. 45 QS), Singapore (No. 48 QS) and the Netherlands (No. 50 QS). Despite this, according to this ranking system, quiet a number of the leading positions are held by US universities (23 universities out of 50 represented). The United Kingdom, in terms of the number of universities on this list is ahead of Australia, which is represented by 7 universities, unlike the 9 higher educational institutions of Great Britain. Canada in this ranking is represented by only 4 universities out of 50. Not counting the above-mentioned four countries, the University of Holland (University of Amsterdam), which stands on 17th place, is the only other country that falls within the top twenty. The next university that is not located in the previous mentioned countries are in New Zealand, whose university (The University of Auckland) is 33rd. A University from Belgium (Ghent University) stands at 35th place. Also in the top 50, there are four higher educational institutions are not from the USA, Great Britain, Australia and Canada, namely, the universities of Hong Kong (The University of Hong Kong), Belgium (KU Leuven), Singapore (National University of Singapore) and the Netherlands (University of Groningen).

In the area of "Psychology" the criteria by which these universities have entered the top 50 in the QS Rankings in 2017 are as follows: 1). Academic reputation; employer reputation; research citations per paper; h-index; science and research / academic reputation (about 50% of the total score). This includes publications in relevant journals (Science, Nature), citing of scientific work from other scientists, the number of Nobel laureates, fields and other prizes associated with the university. 2). Cyber metrics (by the degree of frequency of mentions and the amount of material on the Internet). 3). Student / Teacher Ratio (the ratio of the number of students to the number of teachers) (20% of the total assessment). 4). International orientation (number of foreign students) (15% of the assessment). Attractiveness of the university as an employer (10%). 5). The number of employees at the university with a PhD (QS - 5%).

### **3.2. Ares of Research in Psychology among the Top 50** Universities

In all universities included in this ranking from around the world, where the training program for psychology as a future profession is successfully represented, psychology is studied in separate departments. These include the so-called Department of Psychology (No. 1-7, 10-17, 20-22, 26-29, 31 32, 36, 37, 39, 40, 45, 47-49 QS), Department of Brain and Cognitive Sciences (No. 8 QS), Division of Psychology and Language Sciences (No. 9 QS), School of Psychology (No. 18 23, 25, 33, 41, 43, 44 QS), School of Psychological Sciences (No. 19, 42), Department of Psychology and Neuroscience (No. 24 QS), Department of Psychology and Behavioural Science (No. 30 QS), Department of Psychology and Brain Science (No. 34 QS) Faculty of Psychology and Educational Sciences (No. 35, 46 QS), Academic Psychology (No. 38 QS).

It's interesting to note that trends such as "Developmental Psychology", "Behavioural Neuroscience and Comparative Cognition", "Brain and Behaviour", "Cognitive and Behavioural Neuroscience" and "Perception, Cognition and Cognitive Neuroscience" are much less represented in the in top thirty, forty and fifty universities in comparison with the university that are in the top 10. This means that in the top ten these universities, these unique, up-to-date psychology programs are represented, with which significant advances, set trends in psychological science and practice. Certain statistics observed, however, that in the top 40 and top 50 universities an opposite position is taken. The program "Personal Management and Industrial Psychology" is more often implemented in these universities. Such a direction of training professionals, like "Health psychology" in most cases, is

represented in universities that are in the top 30 and 50 ranking.

Curiously, the areas of "Biopsychology", "Social Work and Psychology", "Women's Studies and Psychology", "Validity of Empirical Research in Psychology" and "Forensic Psychology" are not represented at all in the top ten universities. For example, let is compare Harvard University, which is rated number one of the list, and the university occupying the 50th place (University of Groningen). At the area of "Department of Psychology", "Clinical science", "Cognition, brain, and behavior" which is present at Harvard University, are not studies at all in the University of Groningen and, conversely, such areas as "Neuropsychology", "Experimental Psychotherapy and Psychopathology", "General Psychology", "Psychological Statistics and Psychological Research Methods", implemented at the University of Groningen, are not represented by Harvard University.

It's worth noting that six institutions of higher education (Massachusetts Institute of Technology, Stanford University, Harvard University, University of Cambridge, University of Oxford, University College London), which ranks among the top ten universities that have successfully implemented training programs for future psychologists, are also included in the general list of the world's top ten universities in the overall QS ranking of 2017.

Thus, from the position of the top 50 universities in the world, the most promising areas of research in psychology are: Cognitive psychology, Social psychology, Developmental psychology, Clinical psychology, Behavioural Neuroscience and Comparative Cognition, Cognitive Neuroscience, Sensory Neuroscience and Experimental Psychology, Health psychology, Learning and behavior, Industrial - Organizational Psychology, Forensic Psychology, Quantitative Psychology, Gender Development Psychology, Cellular and molecular neuroscience.

Among Russian universities in 2017, only Lomonosov Moscow State University (No. 201-250 QS) entered the overall top 300 QS in the area of "Psychology".

# **3.3. Academic opportunities and additional bonuses for the future career of psychologists**

At the department of psychology in top universities, research is conducted in scientific laboratories. Among them are: 1. Clinical Research Lab, Vision Sciences Lab, Cognitive Neuropsychology Lab, Lab for Developmental Studies (Harvard University). 2. Psychology Analytical Laboratory Applied Developmental Psychology Research Group, Auditory Perception Group, Baby-LINC Lab, Bays Lab, Consciousness and Cognition Lab, Cambridge Body, Mind and Behavioural Laboratory, Cambridge Laboratory for Research into Autism, Cambridge Pro-sociality and Well-Being Lab, Cambridge Social Decision-Making Lab, Cognition and Motivated Behavior Lab, Comparative Cognition Lab, Memory Laboratory, NeuroLex, Policy Research Group, Translational Cognitive Neuroscience Lab, Well Being Institute (University of Cambridge). 3. Social Perception and Cognition Lab, Adult Development Lab (University of Toronto). A laboratory at the intersection of psychology, communication sciences, social geography and planning, anthropology, political science and pedagogy (Amsterdam University). 4. Adolescent Psychology Lab, Attitudes and Social Cognition Lab, Cardiovascular Psychophysiology Lab, Child Development Lab, Cognition and Education Lab, Decision Neuroscience Lab, Developmental and Emotional Disorders Lab, Emotion and Cognition Lab, Situated Goal Pursuit Lab, Industrial-Organizational Psychology Lab, Infant Lab, Memory and Speech Lab, Neuroscience of Cognition Lab, Perception and Attention Lab, Personality and Psychopathology Lab, Psycholinguistics Lab, Psychological Trauma and Resilience Lab, Quantitative Psychology Lab, Virtual Lab (National University of Singapore). 5. Laboratory of Social and Organizational Psychology, Laboratory of Experimental Psychology and Labour Psychology (University of Groningen), etc.

The top 50 universities in psychology actively suggest ways of finding employment and promoting, above all, a scientific career. For example, at Yale University students already have the opportunity to take part in scientific projects within one or more semesters within the laboratory for clinical, social, and cognitive psychology. They can collect data, question the subjects of study, analyse results, and review literature. Massachusetts Institute of

Technology offers postdoc programs with the development and implementation of young specialists through their own training courses within the framework of annual grants. Based on the analysis of the information provided on official websites in 2017, Post-Graduate Research Jobs are available at Harvard Med School, Boston Children's Hospital (Harvard University), Adaptive Brain Lab (University of Cambridge) and other major scientific organizations.

Harvard University also offers young professionals an opportunity to get acquainted within specific area of study through vacancies in teaching and research in psychology as part of Postdoc programs on the pages of the American Psychological Society's Observer, and the American Psychological Association's Monitor. New York University attracts students and graduate students as volunteers in its Centre for Experimental Social Science, Centre for neural science. At the University of British Columbia in the Centre for Gambling Research, studies on computer game behavior are conducted, where students also participate as volunteers. The University of Pennsylvania provides young specialists with their own travel grants for academic and professional purposes.

Leading universities around the world pay special attention to interaction to the professional psychological community in order to promote the career of young professionals on the one hand, and monitor their professional development, on the other. Therefore, since the University of Cambridge program is accredited by the British Psychological Society, graduates have the opportunity for admission to professional courses in clinical, educational, forensic, applied, or academic psychology. Supervisor Master Classes (PsyBA Approved) are offered at the Melbourne School of Psychological Sciences, which allow psychologists to undergo training every 5 years in order to maintain Board-approved supervisor status. University of Michigan actively cooperates with the largest professional organizations (American Psychological Association, American Psychological Society), and offers ways to develop the carers of both masters and post-graduate students in the university Career Centre. The University of Edinburgh is known for its Alzheimer Scotland Dementia Research Centre, Centre for Cognitive Ageing and Cognitive Epidemiology, which aims to build capacity by providing leadership, training, and resources for early career researchers.

### 3.4. Challenges and Opportunities for Russian Psychological Education

The specific research interests of the top ten top universities in the world concentrates on the fields of cognitive-behavioural direction, neuroscience, and social psychology. As noted above, this, on the one hand, is a guide for the development of domestic psychological science. On the other hand, there is a challenge to find ways to increase competitiveness by creating a unique product in scientific psychology.

The formation of the most optimal strategies for the development in modern Russian psychology implies the need for the development of forecasts and foresight research in this area. To do this, there is need to anticipate trends and make efforts to develop specific directions. Taking into account the powerful Russian philosophical and literary bases, the unique features and prospects of Russian psychological educational model are being built up as a unique feature of Russian society historically formed in the spiritual-moral, religious paradigm that determines the consciousness and activity of the Russian people.

It's not an accident that the top universities analysed in this rating are considered the best. In a natural way, the results of this list correlate with the statistics reflected in the study devoted to the list of 100 most outstanding psychologists of the 20th century (Haggbloom, 2002). According to this list, the top ten psychologists includes: Skinner, B.F (1st place, alma mater Harvard University), Piaget, Jean (2nd place, alma mater University of Neuchâtel, University of Zurich), Freud, Sigmund (3rd place, University of Vienna), Bandura, Albert (4th place, alma mater University of Iowa), Festinger, Leon (5th place, alma mater University of Iowa), Rogers, Carl R. (6th place, alma mater University of Wisconsin-Madison, Schachter, Stanley (7th place, Yale University, University of Michigan), Miller, Neal E. (8th place, Stanford University), Thorndike, Edward (9th place, Harvard University), Maslow, AH (10th place, University of Wisconsin-Madison). The list of the 100 most outstanding scientists in the field of psychology also includes three Russian scientists: Pavlov, Ivan P. (24th place, alma mater Saint-Petersburg State University), Luria, Alexander R. (69th place, alma mater Kazan (Volga region ) Federal University), Vygotsky, Lev Semenovich (83rd place, alma mater Lomonosov Moscow State University, Moscow Shanavsky University, now Russian State University for the Humanities).

Thus, in the 21st century, in order that as many Russian psychologists as possible can enter this list, their Alma mater should be a prosperous university with unique research products. In this case, the main factor in the development of the Russian educational psychological model will be the contribution to developing the strengths of traditional Russian psychological science. Proceeding by scientists of the Institute of Psychology of the Russian Academy of Sciences forecasts that the development of psychology as a science and practice by 2030, states that Russian psychological science will be preserved in conjunction with the orientation to the western samples that are available (Zhuravlev, Nestik, Jurevich, 2016).

Along with the preservation of relevant traditional domestic research directions in psychology, such as personality psychology, clinical psychology, psychotherapy, social psychology, active development, according to experts, will receive directions due to the integration of humanities and natural sciences (cognitive science, neuroscience, psychophysiology, psychogenetics, evolutionary psychology), and areas such as psychology of security, psychology of morality and spirituality will be a priority.

The demanded from a practical point of view will be that psychological counselling, psychotherapy; will be actualized by the needs of an increasingly complex world and, as a result of the "loss the meaning of life" syndrome. Also, technologies for improving the resilience in conditions of chronic and severe stress, constant changes and high uncertainty will play an important role (Zhuravlev, Nestik, Jurevich, 2016).

Increased population migration, on the one hand, will increase interest in cultural and linguistic determinants in the consciousness and behavior of an individual (cultural and historical psychology, cross-cultural psychology, qualitative research methods, the use of psycholinguistic and psychosemantic approaches), and on the other hand, the sphere of cross-cultural relations.

Among the new trends in the development of Russian psychology, the psychology of social networks and virtual reality is singled out. It is caused by problems related to the development of IT technologies, where, alongside with the possibilities of remote psychological diagnostics, the problem of manipulating the mass consciousness opens. In this regard, experts suggest an increase in the relevance of macro-psychology, an applied science that studies the impact on mass consciousness and behavior (Zhuravlev, Jurevich, 2009). The achievements of medicine, genetics, psycho-pharmacology will become the basis for the development of the psychology of genetic engineering, the psychology of programmable endowment and creativity (Zhuravlev, Nestik, Jurevich, 2016).

The uniqueness of traditional Russian psychological science will be able to solve philosophical, systemic problems; the study of morality and spirituality; originality of concepts, manifested in the non-standard approach of solutions to a particular problem and vision of the subject, cultural, linguistic specifics, as well as specific Russian-language psychological discourse; orientation on the cultural-historical and activity approach with a different from the Western understanding of the subject, attention to strong-willed and conscious behavior; the reliance on personal experience as opposed to technical devices, orientation to tradition.

Thus, the most promising field of psychology within the framework of University 3.0 for Russian university education are: a). Maintenance of common world trends shared by top 50 universities represented by the article with in the subject of "Psychology" and traditionally powerful psychological fields in Russia (personality psychology, clinical psychology, developmental psychology, neuroscience, psychophysiology).b) The development of special Russian trends in psychology in the 21th century (the psychology of spirituality and morality, the development of the cultural-historical approach, the psychology of social networks, virtual reality and macro-psychology, the psychology of programmable endowment and creativity, cross-cultural psychology, psychology of security) that can be successfully developed as unique, taking into account the philosophical and cultural grounds, traditions in Russian psychology and exported as unique research and development tools and practical tools into the world of psychological science, education and practice.

## 4. Conclusions

The authors have analysed the statistics presented by one of the most influential global university rankings – QS World University Rankings by subject "Life Sciences & Medicine subjects: Psychology" according to the version of 2017. The authors found that the leaders of the rating are two American and one British universities: Harvard University (USA); Stanford University (USA) and University of Cambridge (GB). The rest of the universities of the top ten of the QS Rankings are also 5 American and 2 British universities. The advantage of the Anglo-Saxon model of education of modern psychology in the world market is presented.

The authors have found that, on a global level, among the highly sought-after areas of research and education in psychology are: "Cognition, brain, and behavior", "Neuroscience", "Behavioural Neuroscience", "Cognitive Neuroscience", "Cognitive psychology", "Social psychology "," Developmental Psychology ". Along with this, some of the top 50 universities offer their own unique research programs such as Behavioural Economics and Psychology, Forensic Psychology, Women's Studies and Psychology, Social Work and Psychology, and others.

The main factor for future Russian psychological education will be the contribution to the development of traditionally strong sides of Russian psychological science. The authors suggest that Russian universities can develop in two directions with a focus on top universities: 1) to support the already existing world trends shared by 50 top universities in the subject of "Psychology"; 2) to offer new directions through the development of their own unique products, which are strong in traditional Russian scientific and educational sphere (psychophysiology, IT-psychology, psychology of morality and spirituality, psychology of security, etc.).

However, following the leaders, Russia is a few steps behind, so to win and deservedly take the top place in the ranking, we must bet on something that will be unique. This is where training of psychology and for psychologists comes in. It is important to understand the challenges facing this profession, and to provide potentially possible answers to them. For this, there is a need for forecasts, foresight research, since new directions will change careers, and Russian scientists will have to anticipate them. The future development of psychological science and future work places for people receiving university education in psychology depend on this.

International educational ratings are a modern system for assessing the quality of universities in terms of parameters relevant to employers, students, teachers and other participants in the international education market. This situation provides an opportunity for free access to information, but at the same time, it means a fierce competition between universities with a high degree of transparency in the evaluation system. Efforts "here and now" are needed, if a transition to the active application of the University 3.0 model is to be effective. It must already be oriented towards the preparation of a new class of players for modern markets. Needed to unite the flows of human and financial capital, to take on the role of integrators of the basic processes of entrepreneurship within the innovation ecosystems, i.e. transform Russian universities into centres that create new models of development, make them participants in the global innovation market.

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