

Integration of Education 2017 vol.21 N4, pages 623-636

Russian institute for advanced study as a new form of training of highly trained teaching staff

Andreev V., Gibadulin R., Prodanov G., Zhdanov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Introduction: The aim of the paper is the analysis of role and capabilities of the Russian Institute for Advanced Study under Moscow State Pedagogical University in preparation of the top qualification scientific and teaching staff, possessing not only high potential in the narrow specialisation, but also inter-And transdisciplinary knowledge. The necessity for such staff is caused by rapid growth of scope and rates of new scientific knowledge accumulation, and, as a result, by development on their basis of new technologies in all sectors and by intensive introduction of such developments into all spheres of human activities. **Materials and Methods:** The processing of results of survey by the questionnaire method, as well as the synergistic and systemic approaches in their analysis and generalization, constituted the methodological basis for this study. **Results:** by analysis and generalisation of survey results it was shown that the Russian Institute for Advanced Study is unique form of training of top qualification scientific and teaching staff. The most important role of the Russian Institute for Advanced Study functioning format in implementation for Institute's tasks is shown. During the work period at the Russian Institute for Advanced Study scientific and pedagogical employees are having unique possibility for finding non-standard approaches and methods for solving various problems, arising during projects implementation and which can't be solved due to formal limitations of the traditional education system. **Discussion and Conclusions:** it is shown that the structure and principles of the Russian Institutes for Advanced Study functioning provide preparation of scientific and pedagogical staff of the highest qualification. The requirement for expanding Institutes for Advanced Study network in Russia is discussed. The results obtained represent practical importance for researchers engaged in the analysis of inter-And transdisciplinary knowledge role in the training of scientific and pedagogical staff. Further studies in this area can be devoted to analysis and generalization of inter-And transdisciplinary approach in the training of highly qualified scientific and pedagogical staff.

<http://dx.doi.org/10.15507/1991-9468.089.021.201704.623-636>

Keywords

Grants competition, Project activity, Russian institute for advanced study, Scientific and pedagogical staff, Transdisciplinarity

References

- [1] Kolbachev E., Kolbacheva T., Salnikova Yu. Application of natural science and engineering methods as a trend in the development of economic and management research and education. *Procedia - Social and Behavioral Sciences*. 2015; 214:1000-1007. DOI:10.1016/j.sbspro.2015.11.692.
- [2] Andreev V.V. On the validity of use of physical equations and principles in the socio-economic field and on the predictability of socio-economic system dynamics. *Nonlinear Analysis: Modelling and Control*. 2015; 20(1):82-98. DOI:10.15388/NA.2015.1.6.
- [3] Markin V.V., Voronov V.V. The training of highly qualified personnel in the discourse of the Bologna process: highway versus roadside. *Integratsiya obrazovaniya = Integration of Education*. 2016; 20(2):164-175. DOI:10.15507/1991-9468.083.020.201602.164-175 (In Russ.).
- [4] Danilova, Somkin A.A., Meshkov V.M. The problem of motivation and methods of its increase at students of not language training direction in teaching foreign language. *Integratsiya obrazovaniya = Integration of Education*. 2016; 20(1):73-81. DOI:10.15507/1991-9468.082.020.201601.073-081 (In Russ.).
- [5] Tetley D., Jones C. Pre-service teachers' knowledge of language concepts: Eelationships to field experiences. *Australian Journal of Learning Difficulties*. 2014; 19(1):17-32. DOI:10.1080/19404158.2014.891530.
- [6] Yalçin H., Yayla K. Scientometric analysis of the researches about technological pedagogical content knowledge and scholarly communication. *Education and Science*. 2016; 41(188):291-307. DOI:10.15390/EB.2016.6746.
- [7] Rosenberg J.M., Koehler M.J. Context and technological pedagogical content knowledge (TPACK): A systematic review. *Journal of Research on Technology in Education*. 2015; 47(3):186-210. DOI:10.1080/15391523.2015.1052663.
- [8] Wu Y.T. Research trends in technological pedagogical content knowledge (TPACK) research: A review of empirical studies published in selected journals from 2002 to 2011. *British Journal of Educational Technology*. 2013; 44(3):E73-E76. DOI:10.1111/j.1467-8535.2012.01349.x.
- [9] Kontkanen S., Dillon P., Valtonen T., Eronen L., Koskela H., Väisänen P. Students' experiences of learning with iPads in upper secondary school -A base for proto-TPACK. *Education and Information Technologies*. 2017; 22(4):1299-1326. DOI:10.1007/s10639-016-9496-7.
- [10] Koh J.H.L., Chai C.S., Benjamin W., Hong H.Y. Technological pedagogical content knowledge (TPACK) and design thinking: A framework to support ICT lesson design for 21st century learning. *The Asia-Pacific Education Researcher*. 2015; 24(3):535-543. DOI:10.1007/s40299-015-0237-2.
- [11] Yeh Y.F., Lin T.C., Hsu Y.S., Wu H.K., Hwang F.K. Science teachers' proficiency levels and pat-Terns of TPACK in a practical context. *Journal of Science Education and Technology*. 2015; 24(1):78-90. DOI:10.1007/s10956-01-9523-7.
- [12] Yang M.S., Cho Y.S., Kim J.S. Factors related to technological pedagogical content knowledge (TPACK) of college instructors: Focusing on the epistemological beliefs and the social support. *Journal of Digital Convergence*. 2016; 14(11):1-12. DOI:10.14400/JDC.2016.14.11.1.
- [13] Koh J.H.L., Chai C.S. Seven design frames that teachers use when considering technological pedagogical content knowledge (TPACK). *Computers & Education*. 2016; 102:244-257. DOI:10.1016/j.compedu.2016.09.003.
- [14] Tokmak H.S., Incikabi L., Ozgelen S. An investigation of change in mathematics, science, and literacy education pre-service teachers' TPACK. *The Asia-Pacific Education Researcher*. 2013; 22(4):407-415. DOI: 10.1007/s40299-012-0040-2.
- [15] Voogt J., McKenney S. TPACK in teacher education: Are we preparing teachers to use technology for early literacy? *Technology, Pedagogy and Education*. 2017; 26(1):69-83. DOI:10.1080/1475939X.2016.1174730.
- [16] Jen T.H., Yeh Y.F., Hsu Y.S., Wu H.K., Chen K.M. Science teachers' TPACK-Practical: Standard-setting using an evidence-based approach. *Computers & Education*. 2016; 95:45-62. DOI:10.1016/j.compedu.2015.12.009.
- [17] Pöntinen S., Dillon P., Väisänen P. Student teachers' discourse about digital technologies and transitions between formal and informal learning contexts. *Education and Information Technologies*. 2017; 22:317-335. DOI:10.1007/s10639-015-9450-0.
- [18] Nabaho L., Oonyu J., Aguti J.N. Good teaching: Aligning student and administrator perceptions and expectations. *Higher Learning Research Communications*. 2017; 7(1):1-16. DOI:10.18870/hlrc.v7i1.321.
- [19] Topping K.J. The effectiveness of peer tutoring in further and higher education: A typology and review of the literature. *Higher Education*. 1996; 32(3):321-345. DOI:10.1007/BF00138870.
- [20] Burgess A., Dornan T., Clarke A.J., Menezes A., Mellis C. Peer tutoring in a medical school: perceptions of tutors and tutees. *BMC Medical Education*. 2016; 16:85. DOI:10.1186/s12909-016-0589-1.
- [21] Roze des Ordon A., Kassam A., Simon J. Goals of care conversation teaching in residency -A cross-sectional survey of postgraduate program directors. *BMC Medical Education*. 2017; 17:6. DOI:10.1186/s12909-016-089-2.
- [22] Sinuff T., Dodek P., You J.J., Barwich D., Tayler C., Downar J., et al. Improving end-of-life communication and decision making: The development of a conceptual framework and quality indicators. *Journal of Pain Symptom Management*. 2015; 49(6):1070-1080. DOI:10.1016/j.jpainsymman.2014.12.007.

- [23] Chiu Y.L.T. Personal statement in PhD applications: gatekeepers' evaluative perspectives. *Journal of English for Academic Purposes*. 2015; 17:63-73. DOI:10.1016/j.jeap.2015.02.002.
- [24] Kahn R.A., Conn G.L., Pavlath G.K., Corbett A.H. Use of a grant writing class in training PhD students. *Traffic*. 2016; 17(7):803-814. DOI:10.1111/tra.12398.
- [25] Adkins B.A. PhD pedagogy and the changing knowledge landscapes of universities. *Higher Education Research and Development Journal*. 2009; 28(2):165-177. DOI:10.1080/07294360902725041.
- [26] Aspland T., Edwards H.E., O'Leary J., Ryan Y. Tracking new directions in the evaluation of postgraduate supervision. *Innovative Higher Education*. 1999; 24(2):127-147. DOI:10.1023/B:IHIE.0000008150.75564.b3.
- [27] Bartlett A., Mercer G. Reconceptualising discourses of power in postgraduate pedagogies. *Teaching in Higher Education*. 2000; 5(2):195-204. DOI:10.1080/135625100114849.
- [28] Lee A. How are doctoral students supervised? Concepts of doctoral research supervision. *Studies in Higher Education*. 2008; 33(3):267-281. DOI:10.1080/03075070802049202.
- [29] Can G., Walker A. Social science doctoral students' needs and preferences for written feedback. *Higher Education*. 2014; 68(2):303-318. DOI:10.1007/s10734-014-9713-5.
- [30] Ignatieva G.A., Tulupova O.V. Scientific-project consulting as an innovative format of post-graduate education. *Obrazovaniye i nauka = The Education and Science Journal*. 2017; 19(1):177-197. DOI:10.17853/1994-563-2017-1-177-197 (In Russ.).