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Methodology of Data Preparation and Data Analysis for International Comparative Studies Aimed at the Research of Russian teachers

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INTRODUCTION

Relevance and research problem

Nowadays, despite the rapid development of new technologies, teachers still have a huge impact on the educational process at school. Their work determines not only the individual results of students, but also the effectiveness of the school as a whole (Lenskaya, 2014; Salberg, 2011). For the whole world, such issues as the training of good teachers, their further professional development, the retention of the best ones in the school and their motivation to work efficiently are important. Recently, there were a lot of studies aimed at analysing the relationships between students' achievements and teachers' characteristics (Tyumeneva, Khavenson, 2012; Baumert et al., 2010; Hill, Rowan, & Ball, 2005; Rivkin et al, 2005). Studies have shown that students' achievements are primarily related to the activities and practices of a teacher.

Teachers' researches are represented by a wide variety of areas: professional development (Hattie, 2009; Garet et al, 2001; Desimone et al, 2002; Hofman & Dijkstra, 2010), teachers' beliefs and practices (Pajares, 1992; Noddings, 1990; Lester , 2007; Kardanova et al. 2014), cooperation with other teachers (Darling-Hammond & McLaughlin, 1995; Youngs & King, 2002; Wei et al, 2009), self-efficacy and job satisfaction (Caprara, 2003; Klassen, 2010; Ma and MacMillan, 1999) and feedback (Santiago & Benavides, 2009; Isoré, 2009; Marshall, 2005). The studies of young teachers can be separated as a special area of interest: adaptation of young teachers to school (Vataschak, 2016; Chernikova, 2008; Calderhead & Shorrock, 1997; Flores, 2001; Hauge, 2000); professional competences of new teachers (Gladkaya, 2010; Loginova, Mitrofanov, 2016), professional development (Pill, 2005; Voprosi adaptacii…, 2016), personality of a young teacher (Luchkina, 2009; Pokusaev, 2007; Hamman et al, 2010).

The largest international studies such as TIMSS, PIRLS and PISA collect information about teachers, which again confirms the importance of their role in the education system. Moreover, recently, several international comparative studies

have been developed with a purpose to describe the characteristics of teachers as a main focus of study and not as additional contextual information. Those are SABER[1] (System Approach for Better Education Results), TEDS-M[2] (Teacher Education Study in Mathematics), TALIS[3] (OECD's Teaching and Learning International Survey), NorBA[4] (Nordic-Baltic comparative research in mathematics education).

The fact that such studies exist once again proves the relevance of studying teachers and also shows a practical request from educational policy makers for data about a teacher, which can be used for management decisions in the field of education. International comparative studies (ICS) provide information for the identification of problem areas in the study field, raising new research questions and hypotheses. This information can also be used for the basis of educational policies (Plomp, 1998; Lewis, 2017).

However, the development of ICS is a difficult task due to the different contexts the instrument is applied in (Ercikan, Roth, Asil, 2015; Oliveri, & von Davier, 2011). The data obtained from the ICS requires a preliminary study, as even in the famous ICS, there are problems of comparability of results across different countries (Grisay et al., 2009; Stubbe, 2011; Oliveri, 2012). Also, the ICS about teachers are based on the self-report method. Teachers answer questions about themselves on socially sensitive constructs, which can cause a bias in results based on the influence of social expectations (He, Van de Vijver et al., 2015).

Thus, ICS of teachers provide researchers with access to unique information and data, based on a large and representative sample. However, for carrying out both comparative and descriptive analysis of data from ICS of teachers which are based on the self-report method, a methodology is needed that will ensure the reliability and validity of the results and conclusions. Based on the analysis of empirical data and theoretical studies, we can state that there is a request to study

[1] Исследование SABER http://saber.worldbank.org/index.cfm
[2] Исследования TEDS-M http://www.iea.nl/fileadmin/user_upload/Publications/ Elec-tronicversions/TEDS-M_Cost_Study.pdf
[3] Исследование TALIS http://www.oecd.org/edu/school/talis-2013-results.htm
[4] Исследование NorBA https://norbal.wordpress.com/2011/09/29/hello-world/

the characteristics of teachers with ICS data. A special methodology to avoid possible comparability errors and social desirability bias should be used.

The purpose of the study is to develop and apply a methodology of data preparation and data analysis for international comparative studies aimed at the research of teachers, that will allow us to conduct a comparative analysis of their characteristics, both at national and international levels.

The following research questions are considered:

- Which methodological approaches can prove the comparability of ICS data for a comparative analysis of teachers' characteristics both at national and international levels?
- Which methodological approaches may allow us to evaluate the social desirability bias of the results obtained using the self-report method?
- What conclusions about teachers' characteristics can be made on the basis of ICS data after conducting a comparative analysis based on presented methodological approaches?

Theoretical framework

ICS in education are an important source of data and information for both researchers and practitioners (Carnoy, 2019; Verger et al., 2019). Currently, there are international standards for the development and conduct of ICS (for example, ITC, 2017), but even compliance with all standards does not guarantee that the data will be comparable. Therefore, any comparative analysis based on the ICS data requires preliminary verification of cross-cultural equivalence - the need for such verification has been proven in a number of studies (Grisay et al., 2009; Stubbe, 2011; Oliveri, 2012). Before conducting a comparative analysis, it is necessary to check the equivalence of items functioning in groups for which the comparison is going to be made. In a cross-cultural context, this is to ensure the equivalence of data obtained in different countries (AERA, APA & NCME, 2014). However, in addition to ensuring the comparability of data within different countries, we consider it necessary to substantiate the possibility of comparison within the

national sample, for different age groups, since we assume the possibility of different interpretations of the questionnaire by different age groups of teachers (Magun, Rudnev, 2008).

To prove the comparability of ICS data, it is necessary to fulfill three conditions: construct equivalence, equivalence of method and equivalence of items (Ercikan, Lyons-Thomas, 2013; Oliveri, & von Davier, 2011; Van de Vijver, 2004). The paper will present a methodology to evaluate the results of the fulfillment of these conditions. The theoretical basis of the research is psychometric theory. The combination of the classical test theory (Byrne, 2011) and item response theory (IRT) (Rasch, 1966; Hambleton, 2002; Ercikan, Lyons-Thomas, 2013; Oliveri, von Davier, 2014) will be used.

Characteristics assessed in ICS in social sciences are often socially sensitive. That is why it can be assumed that they might be influenced by social desirability. This could be one of the limitations of research based on the self-report method. Nowadays, most of the existing studies collecting information about teachers use this method as the most accessible. The definition of social desirability and response style, as a reason for possible bias in researches, based on the self-report method, is borrowed from works of J. He and F. van de Vijver (He, Van de Vijver et al., 2015) and D.L. Polhas (Paulhus, 2002).

The theoretical framework of TALIS will be used to describe the characteristics of teachers. This is the model that examines the school context and characteristics of all participants in the educational process in terms of "input", "process" and "outcomes" (Purves, 1987). This generalising model is the starting point for the classification of the directions of research of teachers. The same model is used in many international comparative studies. The "input" data includes such characteristics as the size of the class, the socioeconomic status of the students, the education and experience of the teacher, and professional development; the "process" includes teachers' beliefs and practices, communication with students and colleagues; classroom instructions; and the "outcomes" - the teachers' self-efficacy and job satisfaction. We will try to take

into account all three levels in this paper and describe the professional development, beliefs and practices, cooperation, self-efficacy, job satisfaction and feedback.

Based on the analysis of previous studies, we can formulate the following hypotheses:

• Presented methodology based on a combination of classical test theory and item response theory proves construct and item equivalence and allows us to ensure the comparability of the teachers' ICS data.

• Items from teachers ICS may not function equally for different groups of respondents, which makes it impossible to make a comparative analysis, both at national and international levels without prior preparation of the data.

• The application of the developed methodology allows us to take into account the bias caused by the self-report method and to draw valid conclusions about the characteristics of teachers, based on the quantitative data of ICS.

Methodology

The data from TALIS (OECD's Teaching and Learning International Survey) and NorBA (Nordic-Baltic comparative research in mathematics education) (Lepic, Pipere, 2011) was used as the main empirical base for the study. The author of the paper was personally involved in the administration of both studies in Russia. The samples of the studies are constructed in a way that they are representative, so the results could be generalised to the whole territory of the Russian Federation. We will focus mostly on the TALIS study, which was conducted in 2013, and represents the most recent information about teachers. The study involved 4,000 secondary school teachers. The NorBA study involved 390 teachers from Latvia, 332 teachers from Estonia and 1096 teachers from Russia. The data was collected also in 2013.

The developed methodology is based on the methods of the IRT (Item Response Theory) and methods of CFA (Confirmatory Factor Analysis) to assess the equivalence of the construct and the equivalence of items. The paper also

presents a method for calculating the response style index to control the bias of the results obtained by the self-report method.

The result of the application of the developed methodology is the possibility to conduct a comparative analysis of the data of the identified studies, both at national and international levels.

For comparative analysis at national level within the data of both studies, based on the statistical distribution of the data and the conceptual framework of the TALIS study, 4 groups of teachers were distinguished: teachers under 29 years old, from 30 to 39, from 40 to 59 and teachers aged over 60.

The age was used as a main characteristic instead of years of experience, as young teachers completed their education relatively recently, and the results can give indirect information about the system of pedagogical education. Another aspect is that young teachers belong to another generation and, most likely, have other values and beliefs. Moreover, teachers with less than 5 years of experience and belonging to other age groups are almost absent in the sample.

For comparative analysis at international level, more than 30 countries participating in the study, were combined into two groups for a more meaningful analysis: countries recognised as leaders in the international educational studies: Singapore, South Korea, Canada (Ontario), Finland, the Netherlands, Belgium (Flanders), Australia, Estonia and Japan (we will refer to them as H9/High nine), and countries that have rather low positions in the international studies: Abu Dhabi, Brazil, Bulgaria, Chile, Malaysia, Mexico, Romania, Serbia (Low eight/L8). This classification was borrowed from the UK TALIS report, which was also conducted as a cross-cultural comparison of the results obtained from the TALIS data (Micklewright, 2014).

The statistical analysis methods will also be used, namely: regression, one-way analysis of variance (ANOVA) and others.

Main findings

The paper presents a methodology for the usage of data from ICS, which confirms the reliability and validity of the analysis, both at national and international levels. To obtain reliable results based on data from ICS, a representative sample is required, including psychometric analysis of the scales; analysis of the differential item functioning (DIF) for the groups, participating in the comparison (both within national and international context; control of social desirability bias in studies, based on the self-report method. Fulfillment of these conditions ensures the equivalence of constructs, method and procedure, and items. Testing of psychometric properties was performed using Item Response Theory (IRT). To estimate DIF, we used the Mantel–Haenszel statistics and practical significance test (comparing the difficulty of tasks), in the framework of IRT, with additional confirmation from multigroup CFA. Regression models were used to control the social desirability bias.

Within the empirical part of the study, scales of constructivist and traditional beliefs were created for cross-cultural analysis, based on the module of NorBA questionnaire. Their cross-cultural equivalence was evaluated to compare the beliefs of teachers from different countries. This is an important result and a significant contribution to the research of teachers' beliefs, since the scales existing at the time of the study did not allow cross-cultural comparison. Also, the scales of social desirability and an index of class contingent complexity (for the Russian sample) were constructed on the basis of the TALIS questions and response style indices were computed as an alternative way of measuring social desirability.

It was shown that items from the ICS of teachers may not function equally for different groups of respondents, which makes it impossible to make a comparative analysis both, at national and international levels without prior preparation of the data. A group of teachers over the age of 60 showed DIF when answering the TALIS survey questionnaire and was removed from the subsequent analysis.

It was shown that a social desirability factor makes a significant contribution to the respondents' results, and that social desirability itself is positively associated with age. This allows us to conclude that the results of young teachers are the least biased and represent the most reliable information. Perhaps the data from young teachers should be used while making policy decisions in the education. An alternative way to assess social desirability, in the absence of a special scale, can be an indirect assessment that measures the response styles. The methodology for calculating the indices characterising response style was presented in the main text of the thesis.

The application of the methodology described in the thesis expands the statistical analysis of ICS data, making it possible to conduct, not only a descriptive, but also a comparative analysis. This allows us to include contextual variables in the interpretation of research results and increases the statistical power of the possible analysis. In this paper, the cohort of young teachers was described in comparison with older age groups and young teachers from other countries, based on TALIS and NorBA data.

The application of the described methodology made it possible to conduct a comparative analysis on TALIS and NorBA data and to obtain reliable and valid results of such an analysis.

Results of TALIS data analysis showed that young Russian teachers differ from foreign young teachers in the following characteristics: professional development, satisfaction with work and self-efficacy. Young Russian teachers indicated less satisfaction with work and school climate and estimate the efficiency of their professional development lower than young teachers from countries with high results in the educational achievements studies. However, young Russian teachers feel more self-efficient than their foreign colleagues. In general, young Russian teachers are closer in their characteristics to teachers of countries with low results in studies of educational achievements (Bulgaria, Chile, Malaysia, Mexico, Romania, Serbia, Abu Dhabi, Brazil). The exception is cooperation: the results of young Russian teachers are significantly higher than the results of the teachers of

the countries listed, and do not differ from the results of the countries leading in the results of educational researches (High 9).

In comparison with their senior colleagues, young Russian teachers evaluate their professional training lower and take less part in various forms of professional development, including introductory and adaptation programmes. Young teachers' need for professional development does not differ from the need of senior teacher groups and can be assessed as high. However, young teachers provide a lower assessment of the effectiveness of existing professional development programmes. This may indicate that existing programmes do not completely satisfy their requests and needs.

Compared to teachers of other age groups, young teachers express lower satisfaction with their profession and their current place of work and also consider the teacher's profession less prestigious. Young teachers have difficulties in communication, which, in turn, can be the reason for their low assessment of the school environment. Young teachers demonstrate a high demand for cooperation with colleagues, but at the same time, they evaluate the effectiveness of such cooperation lower than teachers of other ages. Also, young teachers lack feedback, while the effectiveness and motivating component of feedback are assessed by them as high.

Results of NorBA data analysis showed that there is no difference in neither the level of constructivism, nor level of traditionalism between young Russian teachers and their older colleagues. However, the construction of beliefs profile, that combines both constructive and traditional beliefs, allowed us to conclude that traditional beliefs prevail among young teachers. This can be explained by young teachers' training programmes, or by lack of experience. Control of discipline can be seen as an easier task within a traditional method. A similar result is typical for young teachers from other countries. However, young teachers often combine both constructive and traditional beliefs about effective teaching and learning.

Statements for the defense:

1. The use of raw ICS data to study the existing educational policy, making management decisions in the field of education, describing the characteristics of educational process participants, in a comparative perspective, requires a preliminary analysis of the comparability of data, in terms of context variables involved in the analysis, as well as in terms of possible bias, caused by the method and procedure of the study.
2. Prerequisites to conduct a comparative analysis of teachers' characteristics, based on ICS data and to obtain reliable results are: representative sample, a psychometric analysis of the scales, and analysis of differential item functioning (DIF) for the groups participating in the comparison (both within national and international context). It is necessary to ensure the reliability and validity of the results.
3. In studies of teachers, based on the self-report method, it is necessary to take into account the factor of social desirability. Social desirability is positively related to age, which suggests that the results of young teachers are the least biased and represent the most reliable information.
4. The application of the methodology, described in the paper, expands the statistical analysis of ICS data, making it possible to conduct not only a descriptive, but also a comparative analysis. This allows us to include contextual variables in the interpretation of research results, and increases the statistical power of the possible analysis.
5. The application of the described methodology to TALIS data allows us to conclude that Russian young teachers are closer in their characteristics to teachers from countries with low results in educational achievement studies (Bulgaria, Chile, Malaysia, Mexico, Romania, Serbia, Abu-Dhabi, Brazil).
6. The application of the described methodology to NorBA data allows us to conclude that the beliefs of young teachers in Russia are more traditional than beliefs of teachers from older age groups. The same statement is correct for young

teachers from other countries. However, young teachers often combine both constructive and traditional beliefs about effective teaching and learning.

CONCLUSION

This paper was aimed to develop a methodology of data preparation and data analysis for ICS focusing on teachers to conduct a comparative analysis of teachers' characteristics, both at national and international levels, and to apply this methodology to data from two large ICS - TALIS 2013 and NorBA.

The described methodology allows us to check and to achieve construct equivalence and equivalence of items, which are the main criteria for the data comparability, as well as to take into account the social desirability bias in studies based on the self-report method. To ensure the reliability and validity of ICS based results and its interpretation it is necessary:

- to check the psychometric properties of the scales;
- to estimate DIF among groups for further comparative analysis;
- to control social desirability bias (if self-report method has been used).

The application of developed methodology allowed us to obtain valid results about young Russian teachers in comparison with other age groups of Russian teachers, as well as in comparison with young teachers from other countries with the representative data of large international studies.

The theoretical significance of the work is to describe a methodology of using the data from ICS focusing on teachers and based on the self-report method. Also, presented study expands the field of knowledge about young teachers, putting already available information about young teachers in Russia into a new comparative context, both at national and international levels. In this study the characteristics of young teachers of Russia are described. The application of the methodology proved the validity of the findings of the study. Findings itself can serve as a starting point for the formation of new research questions and

hypotheses that explain the similarities and differences that have been identified, based on context variables.

The practical value of this thesis is that the comparative analysis methodology, presented in the paper, can be used for other similar studies and will provide more reliable results for subsequent interpretation. This research also demonstrates the necessity to account for and control the social desirability bias in the studies, based on the self-report method.

Data obtained during the study can be used indirectly to assess the state of pedagogical education and formulate further management decisions aimed at the retention of school staff and can be related to the training of young professionals; their introduction into the profession and adaptation in school, as well as further professional development.

References

1. AERA A.P. NCME. Standards for educational and psychological testing. 2014.

2. Baumert J., Kunter M., Blum W., Brunner M., Voss T., Jordan A., … Tsai Y-M. Teachers' mathematical knowledge, cognitive activation in the classroom, and student progress // American Educational Research Journal. 2010. № 47(1) P. 133–180.

3. Calderhead J., Shorrock S. Understanding teacher education. Case studies in the professional development of beginning teachers. London: Falmer Press. 1997.

4. Caprara G.V., Barbaranelli C., Borgogni L., Steca P. Efficacy Beliefs as Determinants of Teachers‟ job Satisfaction // Journal of Educational Psychology. 2003. № 95(4). P. 821–832.

5. Carnoy M. The Transformation of Comparative and International Education, 1965-2015. Stanford, California: Stanford University Press. 2019.

6. Darling-Hammond L., McLaughlin M.W. Policies that support professional development in an era of reform // Phi Delta Kappan. 1995. № 76. P. 597–604. URL: www.pdkintl.org/index.htm (дата обращения 15.07.2019).

7. Desimone L.M., et al. Effects of professional development on teachers‟ instruction: Results from a three-year longitudinal study // Educational Evaluation and Policy Analysis. 2002. № 24(2). P. 81–112.

8. Ercikan K., Lyons-Thomas J. Adapting Tests for Use in Other languages and Cultures, in: K.F. Geisinger (Ed) APA Handbook of Testing and Assessment in Psychology. Vol. Three: (Washington, American Psychological Association). 2013.

9. Ercikan K., Roth W.M., Asil M. Cautions about Inferences from International Assessments: The Case of PISA 2009. Teachers College Record. 2015. № 117(1).

10. Flores M.A. Person and context in becoming a new teacher // Journal of Education for Teaching. 2001. № 27(2). P. 135–148.

11. Garet M.S., et al. What makes professional development effective? Results from a national sample of teachers // American Educational Research Journal.

2001. № 38. P. 915–945. URL: www.jstor.org/stable/3202507 (дата обращения 15.07.2019).

12. Grisay A., Gonzalez E., Monseur C. Equivalence of item difficulties across national versions of the PIRLS and PISA reading assessments. In M. von Davier D. Hastedt (Eds.), IERI monograph series: Issues and methodologies in large scale assessments. 2009. № 2.

13. Hammana D., Gosselin K., Romano J., Bunuan R. Using possible-selves' theory to understand the identity development of new teachers // Teaching and Teacher Education. 2010. № 26. P.1349–1361.

14. Hattie J. Visible learning: A synthesis of over 800 meta-analyses relating to achievement. New York: Routledge. 2009.

15. Hauge T.E. Student teachers' struggle in becoming professionals: Hopes and dilemmas in teacher education. In C. Day, A. Fernandez, T. E. Hauge, J. Moller (Eds.), The life and work of teachers. International perspectives in changing times. London: Falmer Press. 2000. P. 159–172.

16. He J., Vijver F.J., et all. Socially Desirable Responding Enhancement and Denial in 20 Countries // Cross-Cultural Research. 2015. № 49(3). P. 227–249.

17. Hill H.C., Rowan B., Ball D.L. Effects of teachers' mathematical knowledge for teaching on student achievement // American Educational Research Journal. 2005. № 42(2). P. 371–406.

18. Hofman R., Dijkstra B. Effective teacher professionalization networks? // Teaching and Teacher Education. 2010. № 26. P. 1031–1040.

19. Isoré. Teacher Evaluation: Current Practices in OECD Countries and a Literature Review. EDU Working Paper. 2009.

20. International Test Commission. International Guidelines for Test Use / International Test Commission // Int. J. Test. 2017. T.1. № 2. P. 93–114.

21. Klassen R., et al. Teacher Efficacy Research 1998–2009: Signs of Progress or Unfulfilled Promise? // Educational Psychology Review. 2010. P. 1–23.

22. Lepic M., Pipere A. Baltic-Nordic Comparative Study on Mathematics Teachers' Beliefs and practices // Acta Paedagogica Vilnensia. 2011. № 27. P. 115–123.

23. Lester F.K. Second handbook of research on mathematics teaching and learning. Charlotte, NC. 2007.

24. Lewis S. PISA 'Yet To Come': governing schooling through time, difference and potential // British Journal of Sociology of Education. 2017. P. 1–15.

25. Ma X., MacMillan R.B. Influences of workplace conditions on teachers' job satisfaction // The Journal of Educational Research. 1999. № 93(1). P. 39–47.

26. Marshall K. It's Time to Rethink Teacher Supervision and Evaluation // Phi Delta Kappan. 2005. № 86(10). P. 727–735.

27. Micklewright J. et al. Teachers in England's Secondary Schools: Evidence from TALIS. 2013. URL: http://www.oecd.org/education/school/UK-TALIS-2013-national-report.pdf (дата обращения 15.07.2019).

28. Noddings N. Constructivism in mathematics education // Davis, R.B., Maher, C.A., Noddings N. (Eds.). Constructivist views on teaching and learning mathematics (JRME Monograph No.4). Reston, VA: National Council of Teachers of Mathematics. 1990. P. 7–18.

29. Oliveri M.E., Davier M. Investigation of model fit and score scale comparability in international assessments. Psychological Test and Assessment Modeling. 2011. № 53(3). P. 315–333.

30. Oliveri M.E. et al. Methodologies for investigating item-and test-level measurement equivalence in international large-scale assessments // International Journal of Testing. 2012. T.12. № 3. P. 203–223.

31. Pajares M.F. Teachers' beliefs and educational research: Cleaning up a messy construct. Review of Educational Research. 1992. № 62(3). P. 307–332.

32. Paulhus D.L. Socially Desirable Responding: We Evolution of a Construct // We role of constructs in psychological and educational measurement / H.I. Braun, D.N. Jackson, D.E. Wiley (Eds.) Mahwah (NJ): Erlbaum. 2002. P. 49–69.

33. Pill A. Models of professional development in the education and practice of new teachers in higher education // Teaching in Higher Education. 2005. № 10(2). P. 175–188.

34. Plomp T. The potential of international comparative studies to monitor the quality of education. Prospects. 1998. № 28(1). P. 45–59.

35. Rivkin S., Hanushek E, Kain J. Teachers, Schools and Student Achievement // Econometrica. 2005. № 73(2). P. 417–458.

36. Salberg P. Finnish lessons. Teachers College. Columbia University, NY. 2011. 87 p.

37. Santiago P., Benavides F. Teacher Evaluation: A Conceptual Framework and Examples of Country Practices, OECD. 2009. URL: http://www.oecd.org/dataoecd/16/24/44568106.pdf (дата обращения 15.07.2019).

38. Stubbe T.C. How do different versions of a test instrument function in a single language? A DIF analysis of the PIRLS 2006 German assessments // Educational Research and Evaluation. 2011. № 17(6). P. 465–481.

39. Van de Vijver F., Tanzer N.K. Bias and equivalence in cross-cultural assessment: an overview // Revue européenne de psychologie appliquée. 2004. № 54. P. 119–135.

40. Verger A., Parcerisa L., Fontdevila C. The growth and spread of large-scale assessments and test-based accountabilities: a political sociology of global education reforms // Educational Review. 2019. № 71(1). P. 5–30.

41. Wei R.C. Professional learning in the learning profession: A status report on teacher development in the U.S. and abroad. Dallas, TX: National Staff Development Council. 2009. URL: http://www.nsdc.org/news/NSDCstudytechnicalreport2009.pdf (дата обращения 15.07.2019).

42. Youngs P., King M.B. Principal leadership for professional development to build school capacity // Educational Administration Quarterly. 2002. № 38. P. 643–670.

43. Bolotov, V.A. Proshloe, nastoyashchee i vozmozhnoe budushchee rossijskoj sistemy ocenki kachestva obrazovaniya // Voprosy Obrazovaniya // Educational Studies. 2018. № 3. P. 287–297. (In Russian)

44. Vatashchak I.S. Professional'nye interesy molodyh pedagogov i issledovanie ih dinamiki // Voprosy adaptacii i professional'nogo razvitiya molodyh pedagogov. Sbornik nauchno-prakticheskih materialov. – M.: Izdatel'stvo «Pero», 2016. P. 25–46. (In Russian)

45. Voprosy adaptacii i professional'nogo razvitiya molodyh pedagogov. Sbornik nauchno-prakticheskih materialov. – M.: Izdatel'stvo «Pero», 2016. 260 p. (In Russian)

46. Gladkaya I.V Molodye uchitelya o svoej gotovnosti k professional'noj deyatel'nosti // Izvestiya Rossijskogo gosudarstvennogo pedagogicheskogo universiteta im. A.I. Gercena. 2012. № 148. P. 104–118. (In Russian)

47. Kardanova E.YU., Ponomareva A.A., Osin E.N., Safuanov I.S. Sravnitel'noe issledovanie ubezhdenij i praktik uchitelej matematiki osnovnoj shkoly v Rossii, EHstonii i Latvii // Voprosy obrazovaniya. 2014. № 2. P. 44–81. (In Russian)

48. Lenskaya E.A. Otchet o nauchno-issledovatel'skoj rabote po teme: «Spros i predlozheniya v sisteme povysheniya kvalifikacii pedagogicheskih kadrov» M, RANHiGS. 2014. URL: ftp://w82.ranepa.ru/rnp/ppaper/mak17.pdf (In Russian)

49. Loginova N.F., Mitrofanov K.G. CHto umeyut i chto ne umeyut delat' molodye pedagogi: itogi issledovaniya ehffektivnosti sushchestvuyushchih uslovij adaptacii, zakrepleniya i professional'nogo razvitiya molodyh pedagogov Rossijskoj federacii // Voprosy adaptacii i professional'nogo razvitiya molodyh pedagogov. Sbornik nauchno-prakticheskih materialov. – M.: Izdatel'stvo «Pero», 2016. P. 72–90. (In Russian)

50. Luchkina T.V. Professional'no-lichnostnaya poziciya molodogo uchitelya v sovremennoj shkole // Uchenye zapiski Zabajkal'skogo gosudarstvennogo universiteta. Seriya: Professional'noe obrazovanie, teoriya i metodika obucheniya. 2009. № 6. P. 90–97. (In Russian)

51. Magun V., Rudnev M. ZHiznennye cennosti rossijskogo naseleniya: skhodstva i otlichiya v sravnenii s drugimi evropejskimi stranami //Vestnik obshchestvennogo mneniya. Dannye. Analiz. Diskussii. 2008. №.1. (In Russian)

52. Pokusaev V.A. Struktura lichnostnyh kachestv molodyh uchitelej s uspeshnoj professional'noj adaptaciej v ocenkah pedagogicheskogo kollektiva // Vestnik Omskogo universiteta. Seriya «Psihologiya». 2007. № 1. P. 49–55. (In Russian)

53. Tyumeneva U.A., Havenson T.E. Harakteristiki uchitelej i dostizheniya shkol'nikov. Primenenie metoda firstdifference k dannym TIMSS-2007 // Voprosy obrazovaniya № 3, 2012. P. 112–140. (In Russian)

54. Chernikova E.G. Faktory social'no-professional'noj adaptacii molodyh uchitelej // Vestnik CHelyabinskogo gosudarstvennogo universiteta. 2008. № 10. P. 171–179. (In Russian)

Author's Publications

1. Kulikova A.A. The portrait of a young teacher in Russian and foreign studies (Obraz molodogo uchitelya v sovremennyih rossiyskihi zarubezhnyih issledovaniyah) // Russian and foreign pedagogy (Otechestvennaya i zarubezhnaya pedagogika). 2018. T.1. № 1(46). P. 81–94. (In Russian language)

2. Kosaretskiy S.G., Pinskaya M.A., Ponomareva A.A. Professional development and competences of young teachers in Russia (Professionalnoe razvitie i podgotovka molodyih uchiteley v Rossii) // Educational Studies (Voprosyi obrazovaniya). 2016. № 2. P. 100–124. (In Russian language)

3. Kardanova E.U., Ponomareva A.A., Safuanov I.S., Osin E.N. Comparative Study of mathematics teachers' believes and practices (Sravnitelnoe issledovanie ubezhdeniy i praktik uchiteley matematiki osnovnoy shkolyi v Rossii, Estonii i Latvii) // Educational Studies (Voprosyi obrazovaniya). 2014. № 2. P. 44–81. (In Russian language)

4. Russian teachers in a light of research data (Rossiyskie uchitelya v svete issledovatelskih dannyih) / Editors (Otv. red.): I. D. Frumin, V.A. Bolotov, S.G. Kosaretskiy, M. Karnoy. M.: Izdatelskiy dom HSE, 2016. (Ponomareva A.A., chapters 4-6, 9, 10). (In Russian language)

5. Pinskaya M.A., Lenskaya E.A., Ponomareva A.A., Brun I.V., Kosaretsky S.G. & Savelyeva M.B. What Did We Learn About Our Teachers and Principals? Results of the TALIS-2013 International Comparative Study // Russian Education & Society. 2016. № 58(7–8). URL: http://www.tandfonline.com/doi/full/10.1080/10609393.2016.1298372/

6. Pinskaya M., Lenskaya E., Ponomareva A., Brun I., Kosaretskiy S., Saveleva M. Russian teachers in TALIS (Rossiyskie uchitelya v issledovanii TALIS) // Educational work at school (Vospitatelnaya rabota v shkole). 2015. № 7. P. 72–84. (In Russian language)

7. Pinskaya M.A., Lenskaya E.A., Ponomareva A.A., Brun I.V., Kosaretskiy S.G., Saveleva M.B. Comparative Study TALIS-2013 on questions about teaching and learning (Sravnitelnoe issledovanie TALIS-2013 po voprosam prepodavaniya i

obucheniya) // Russian Education (Rossiyskoe obrazovanie). 2015. № 4. P. 28–41. (In Russian language)

8. Gohberg L.M., Zabaturina I.U., Kovaleva G.S., Kovaleva N.V., Kuznetsova V.I., Ponomareva A.A., Shugal N.B. Education in numbers (Obrazovanie v tsifrah): 2016 / Editors (Pod obsch. red.): G.V. Andruschak, L.M. Gohberg, N.V. Kovaleva, Ya.I. Kuzminov. M.: HSE, 2016. (In Russian language)

9. Bondarenko N.V., Gohberg L.M., Zabaturina I.U., Kovaleva N.V., Kuznetsova V.I., Ozerova O.K., Pinskaya M.A., Podolskiy O.A., Ponomareva A.A., Ryilko E.D., Shugal N.B. Educational indicators (Indikatoryi obrazovaniya): 2017 / Editors (Pod obsch. red.): L.M. Gohberg, N.V. Kovaleva, Ya.I. Kuzminov. M.: HSE, 2017. (In Russian language)

10. Van de Vijver F., He J., Kulikova A.A. Country-level correlates of educational achievement: evidence from large-scale surveys // Educational Research and Evaluation. 2017. Vol. 23. No. 5-6. P. 163–179.

Selected conferences

1. Conference «Tendency of educational development», presentation «Problems of education and training of young teachers», (Moscow, February 2016).
2. Seminar of Institute of Education HSE, presentation «How to work with the results of self-report? The case of TALIS international study», (Moscow, May 2016).
3. XVI April international conference of economic and development, presentation “Cross-cultural measurement of mathematics teachers’ beliefs”, (Moscow, April 2015).
4. 14th Annual Conference Association for Educational Assessment - Europe Paris, presentation "Comparative study on mathematics teachers' beliefs and practices", (Paris, November 2013).
5. European Conference on Educational Research 2014 "The Past, the Present and Future of Educational Research in Europe" presentation "Cross-cultural Comparability of Survey Data: Case of Nordic-Baltic Comparative Study" (Porto, September 2014).