

NATIONAL RESEARCH UNIVERSITY  
HIGHER SCHOOL OF ECONOMICS  
Institute of Education

*As a manuscript*

**Elen Yusupova**

**TEACHER EXPECTATIONS AND ACADEMIC ACHIEVEMENT  
OF STUDENTS WITH DIFFERENT LEVELS OF ACADEMIC AND  
SOCIAL-EMOTIONAL SKILLS IN PRIMARY SCHOOL**

Summary of the thesis  
for the purpose of obtaining academic degree  
Doctor of Philosophy in Education

Academic Supervisor:  
Elena Kardanova, PhD

Moscow – 2024

Applicant's name	Elen Magomedovna Yusupova
Subject	Teacher Expectations and Academic Achievement of Students with Different Levels of Academic and Social-Emotional Skills in Primary School
Organization	National Research University Higher School of Economics, Institute
Academic Supervisor	Elena Yuryevna Kardanova, PhD, Scientific Director of the Center for Psychometrics and Measurements in Education, Institute of Education, HSE
List of publications of the author of the thesis, which reflect the main scientific results of the thesis:	<p>Abdurakhmanova E.M. Teacher's expectations and students' academic achievements: a review of foreign research // <i>Otechestvennaya i Zarubezhnaya Pedagogika</i>. 2020. vol. 1, no 4 (69), pp. 75–87.</p> <p>Yusupova, Elen. 2023. "What Primary School Teachers Are Guided by in Their Expectations Regarding the Academic Success of Students". <i>Voprosy Obrazovaniya / Educational Studies Moscow</i>, no. 1 (April), 273-97. <a href="https://doi.org/10.17323/1814-9545-2023-1-273-297">https://doi.org/10.17323/1814-9545-2023-1-273-297</a>.</p> <p>Yusupova, Elen, Anastasia Kapuza, and Elena Kardanova. 2022. "Is the Academic Performance of Schoolchildren Linked to the Expectations of Their Teachers? Results of an Experimental Study". <i>Voprosy Obrazovaniya / Educational Studies Moscow</i>, no. 1 (March), 189-217. <a href="https://doi.org/10.17323/1814-9545-2022-1-189-217">https://doi.org/10.17323/1814-9545-2022-1-189-217</a>.</p>
List of scientific conferences at which the results of the thesis research were presented:	<p>EDULEARN21 13th annual International Conference on Education and New Learning Technologies, 5th - 6th of July, 2021. Report: «THE PROMISES AND PERILS OF DIAGNOSTIC LABELS».</p> <p>22nd Annual Meeting of the Association for Educational Assessment – Europe (AEA-Europe 2021). Assessment for Changing Times: Opportunities and Challenges. Report: «Teachers Beliefs of Growth Mindsets and Students' Mathematical Skills» (November 2021).</p> <p>Quantitative Research Methods in Education (Gothenburg). Report: «Factors related to the educational achievements of primary school students with different levels of cognitive and non-cognitive development» (June, 2019).</p>

## **1. Introduction**

### **Relevance of the research**

Studying teacher expectations is crucial because they are closely linked to students' future academic success and has the potential to create self-fulfilling prophecies [Rosenthal and Jacobson, 1968]. Teachers' high expectations of students' academic achievements contribute to the “Pygmalion effect” and are positively associated with students' academic achievements [Rosenthal, and Jacobson, 1968; Wang, Rubie-Davies and Meissel, 2018]. Low expectations can lead to the “Golem effect”, that is, they can restrain or even provoke a decline in students' academic performance [Babad, Inbar and Rosenthal, 1982; Reynolds, 2007]. Teacher expectations can also impact students' academic motivation and social-emotional skills [Wang, Rubie-Davies, and Meissel, 2018].

It is especially important to study the relationship between teacher expectations and academic achievements of primary school students because teacher expectations have a stronger effect on younger students [Sun, 2021]. This is especially true in grades 1-2 when students are more focused on the teacher's assessment [Obukhov et al., 2021].

Empirical studies indicate that the relationship between teacher expectations and academic performance is stronger than with students' social-emotional skills [Timmermans, Boer, and van der Werf, 2016; Jussim, 1989; Mistry, White, Benner, and Huynh, 2009]. At the same time teacher expectations may be misrepresented and may not always reflect the student's actual ability [Gentrup, Lorenz, Cornelia, and Kogan, 2020]. This may be because teachers also base their expectations on information that is not relevant to academic performance, such as social-emotional skills [Wang, Rubie-Davies, and Meissel, 2018]. While numerous studies have provided evidence linking teacher expectations to students' previous academic performance and social-emotional skills, it remains uncertain how much the influence of social-emotional skills on teacher expectations varies among students with different levels of academic achievement.

Recent research examining the underlying mechanism of teacher expectations reveals that the impact of teacher expectations on academic performance varies among students [Johnston, Wildy, and Shand, 2019]. One factor that can change the direction and strength of the relationship between expectations and academic performance may be the student's social-emotional skills. Students vary in their levels of academic achievements and social-emotional skills [Kardanova et al., 2018; Orel et al., 2018; Südkamp, Praetorius, and Spinath, 2018]. However, teachers tend to neglect possible inconsistencies in the levels of academic performance and social-emotional skills [Südkamp, Praetorius, and Spinath, 2018], thereby creating distorted expectations. Therefore, it seems important to inform teachers about heterogeneous groups of students who differ in terms of academic performance and social-emotional skills.

In addition, social-emotional skills are related to students' academic performance [Li, Song, Wang, and Zhang, 2022] and teacher expectations [Wang, Rubie-Davies, and Meissel, 2018]. Among social-emotional skills, one of the key skills for school success is the goal achievement skill (goal achievement) [OECD, 2015]. This skill is positively related to academic performance [Moller, Theiler and Wu, 2012; Urgo and Arguello; 2023]. It is the skill that teachers with high expectations tend to train in their students [Rubie-Davies, 2008]. In this regard, the role of goal achievement as a mediator of teacher expectations has not been investigated.

### **Problem Statement**

Based on the literature review the following lacunas can be identified, which this study is devoted to investigate.

1. It has not been investigated whether sending information to teachers about heterogeneous groups of students will affect their expectations and their interactions with students.

2. Whether there are differences in the relationship between teacher expectations and social-emotional skills for students with different levels of academic performance remains unexplored.

3. The role of students' goal achievement in the process of the teacher expectation effect has not been investigated.

### **Theoretical framework of the study**

The work draws on a few existing theoretical approaches to explain the effect of teacher expectations [Good and Brophy, 2008, p. 51; Cooper and Good 1983; Rubie-Davies, 2003], which identify four main stages:

(1) given the information they have about the student, as well as their experience, beliefs, and attitudes, the teacher forms expectations regarding the future achievements of students;

(2) a teacher communicates their expectations to students through their behavior and providing them with various learning opportunities;

(3) students perceive and interpret teacher behavior;

(4) teacher behavior and students' perceptions and interpretations of this behavior is reflected in students' academic achievements.

Teacher expectations combined with accurate predictions and student actions can lead to self-fulfilling prophecies.

### **Research aims and objectives**

The purpose of this study is to find out how teachers' expectations affect the academic achievement of primary school students with different academic levels and different socio-emotional skills.

Based on the aim, the following research objectives were set:

1) examine the relationships between teachers' expectations and teachers' access to information regarding heterogeneous student groups at the start of the first grade, differing in their combined levels of academic performance and social-emotional skills;

2) analyze whether there is an indirect relationship between the teacher's information about groups of students and the academic performance of students after a year of study;

3) assess the relationship between teachers' expectations and students' social-emotional skills based on academic performance;

4) analyze the link between teachers' expectations and students' academic performance, mediated by the skill of achieving goals.

### **Research design**

To solve the research objectives, the following studies were planned and carried out:

1) a cluster randomized controlled experimental study, to find out how a teacher's access to information about students belonging to a certain group affects the teacher's expectations and behavior, and whether this is reflected then in student academic outcomes;

2) a study testing whether the relationship between teacher expectations and social-emotional skills varies among children based on academic performance;

3) a study on how teacher expectations affect academic outcomes, and whether this is mediated by students' goal achievement.

Academic outcomes included test scores on standardized tests in reading and mathematics for primary school students. Social-emotional skills included self-control and communication skills in first grade and goal-achievement skills in third grade. Self-control is defined by students'

ability to concentrate, comply with the guidelines of educational institutions, consider others' perspectives, and demonstrate behavior following these principles. Communication refers to a student's skills with peers and adults, including emotional control and individual traits like confidence and independence. Goal achievement was viewed as students' ability to set goals and achieve them. We defined teacher expectations as predictions about students' future academic achievement based on what the teacher knows about them.

## **1. Methodology**

### **Assessment tools**

We used the START and PROGRESS tools to assess students' academic achievements and social-emotional skills at the start and measure their progress in primary school. These tools were developed at the Institute of Education of the HSE University [Kardanova et al., 2018; Federyakin, Larina and Kardanova, 2021; Orel, Kulikova (Ponomareva), 2018].

START evaluates students' fundamental mathematics, reading, self-control, and communication skills at the beginning of the school. It also tracks their progress throughout the first year of study. PROGRESS measures basic mathematical, language, and reading literacy skills. It also assesses social-emotional skills like goal achievement.

Students' results on the PROGRESS tests were scaled and aligned using psychometric methods to the scales of the START [Kolen, Brennan, 2013].

In addition to assessing students' skills, teachers and parents were surveyed. Parents were surveyed at the beginning of first grade. Parents provided information about their children's age and gender, the mother's level of education, and family characteristics. Teachers were surveyed at the beginning of the first and second grades. Teacher expectations were measured at the beginning of the second grade.

### **Research sample**

The dissertation consisted of three extensive studies conducted in a region in Russia from 2019 to 2021. The research was conducted in different stages, beginning with an experimental study in first-grade classrooms. Data were collected using START, which was then also used for the second study. Finally, data collection was organized and implemented in third-grade classrooms using PROGRESS.

The initial sample for the experiment was constructed using two-stage stratified cluster random sampling. The sampling unit was the school. Most schools chosen for the study had only one classroom and teacher, although a few schools had multiple classrooms with separate teachers. The final experimental study sample included 4,460 students from 188 schools (mean age of children = 7.4 years; 50.1% girls) and 277 teachers.

The PROGRESS study in the third grade was conducted with the same schools that participated in the previous study. However, due to pandemic restrictions, collecting data for the study across the region was challenging. As a result, data collection was limited to the regional center. Only complete data from students and teachers who participated in both studies were included in the analysis. The final sample consisted of 1,269 students (52% girls) and 88 teachers.

Only those students whose parents signed an informed consent to participate in the study took part in START and PROGRESS.

## **Experimental design**

The primary objective of the experimental study was to enhance the awareness of teachers in the experimental group regarding children with diverse academic and social-emotional skill levels, while also providing them with effective strategies for interacting with these children. Theoretical premises led to a hypothesis that suggests the teacher's access to information about heterogeneous groups of children and their corresponding recommendations can significantly influence the teacher's behavior when working with these children.

The study received approval from the ethical commission of HSE University [Protocol 11/25/2019].<sup>1</sup>

The experiment took place in four stages.

The first stage is the initial examination (October 2019). Students were initially assessed with START; parents and teachers were also surveyed. The initial testing involved calculating the scores of all students on four different scales: "Mathematics," "Reading," "Self-Control," and "Communication." These scores were measured for each child individually. Scores on each scale were converted to a standardized 100-point scale with a mean of 50 and a standard deviation of 10. Two scores were obtained for each child on a 100-point scale, representing their level of academic (mathematics and reading) and social-emotional (self-control and communication) skills.

This made it possible to distinguish 4 groups of children:

Group 1 consists of children who achieved scores exceeding 50 points in both academic skills and social-emotional skills assessment. This group was characterized as having "advanced" academic skills and "mature" social-emotional skills.

Group 2 consists of children who have achieved scores exceeding 50 points in academic skills and less than 50 in social-emotional skills assessment. This group was characterized as having "advanced" academic skills and "developing" social-emotional skills.

Group 3 consists of children who achieved scores less than 50 points in academic skills and more than 50 points in social-emotional skills. This group was characterized as having "basic" academic skills and "mature" social-emotional skills.

Group 4 consists of children who achieved scores less than 50 points in both academic skills and social-emotional skills assessment. This group was characterized as having "basic" academic skills and "developing" social-emotional skills.

In the second stage of the study, which took place in November 2019, schools were randomly allocated to either the control or experimental group. The aim was to ensure a balanced distribution between the two groups.

In December 2019, we provided teachers with comprehensive reports on children's results. Teachers in the experimental group were given an additional report with information about specific attributes of different groups of children. Webinars were also conducted to guide teachers on how to effectively use these reports in their work.

Based on the testing results, two types of reports were prepared:

---

1

<https://www.hse.ru/data/2021/07/29/1423283276/%D0%9F%D1%80%D0%BE%D1%82%D0%BE%D0%BA%D0%BE%D0%BB%2025.11.2019.doc>

- standard START reports with the results of the first stage of diagnostics, which included aggregated results for the class and individual student results on all four assessed scales on a 100-point scale;

- a supplementary report providing insights on students' membership in specific groups. The report included a helpful and detailed description of the groups, highlighting possible issues for each group. It also offered helpful suggestions to teachers on how to interact with children in each group.

Teachers in the control group were given only standard reports; teachers in the experimental group both reports. Therefore it is plausible that any divergences in the outcomes of students in the two groups can be attributed to the supplementary report given to teachers in the experimental group.

The fourth stage is the final diagnosis (September 2020). At this stage, students took a second START test, and students and teachers also took part in an additional survey.

The success of the intervention was tested through students' academic outcomes [De Boer, Timmermans, and van der Werf, 2018].

### **Analytical approach**

The data have a hierarchical structure: students are nested within classes, and classes are nested within schools. Multilevel models that fit data with a hierarchical structure were used to solve research problems [Hox, 2002; Raudenbush and Bryk, 2002]. To analyze the data, we used two-level hierarchical models since most of the schools in the sample were composed of only one class (75%). These models allowed us to consider individual students at the first level and classes at the second level.

The following statistical methods were used when analyzing the data:

- multilevel regression analysis;
- multilevel logistic regression analysis;
- multilevel multinomial regression analysis;
- multilevel mediation.

## **2. Results**

### **Research objective 1. Analyzing the relationship between teacher expectations and information availability about heterogeneous student groups in first grade**

The baseline regression model showed that the intraclass correlation coefficient (ICC) of the multilevel regression model was 0.18, meaning that the proportion of variance in the differences was greater within a class. Teacher expectations for students in a class may differ, but overall, the average level of expectations remains relatively consistent across teachers.

An analysis of the relationship between teachers' availability of information about groups of children and their expectations revealed no statistically significant relationships, when controlling for starting academic performance and social-emotional skills. However, research has shown a significant statistical relationship between initial academic achievements and students' social-emotional skills, and teacher expectations.

In order to better understand the findings, interviews were conducted with some of the teachers who participated in the study. The interviews brought to light several interesting findings. Firstly, nearly all teachers expressed familiarity with the majority of their students even before the start of the academic year. Some children had attended preparatory programs at the school, while others came from families whose older children had studied under the same teachers. Secondly,

prior to the experimental study, the teachers already held specific expectations. They reported that the children lived up to these expectations. When asked what the teachers' expectations were, they admitted that they focused on students' records, family characteristics, motivation, and discipline. Thirdly, teachers reported that they could adjust their expectations. Nevertheless, they base their decisions on the behaviors they observe in students at school, rather than relying on independent diagnostic results.

**Research objective 2. Analyzing the presence of an indirect relationship between teachers' knowledge about student groups and students' academic performance after a year of study**

To address this research objective, a multilevel mediation analysis was conducted. Teacher knowledge of grouping was used as a predictor in the models. The dependent variable was the academic achievement of students at the end of first grade. Additionally, the time a teacher spent with each student was considered as the mediator.

The study discovered that the availability of information to teachers about students' group 2 membership indirectly influenced students' performance in math and reading. This impact was observed through the amount of time teachers spent with students, even after accounting for their initial academic performance and social-emotional skills.

In summary, the experimental results lead to a clear and compelling conclusion that teacher expectations regarding the academic achievement of students are determined by their initial academic performance and social-emotional skills, rather than by any information concerning student groups. Information about groups is indirectly, through teacher time with students, reflected in the academic performance of students from a particular group at the end of the school year.

**Research objective 3. Studying the link between teacher expectations and students' social-emotional skills based on academic skill level**

A series of multilevel regressions were constructed with interactions between academic performance and social-emotional skills. The results indicated that teachers prioritize both initial academic performance and self-control and communication skills equally when setting expectations. There is no difference in the patterns of relationships between math and reading. The effect size of these relationships are alike, although they vary for self-control and communication skills. The interaction variables of reading and self-control scores, as well as math and self-control scores, did not yield significant coefficients. However, the coefficients of the interaction variables between reading and communication scores, and math and communication scores were found to be statistically significant ( $\beta = -0.03$ ,  $p < 0.01$  and  $\beta = -0.02$ ,  $p < 0.05$  respectively). The negative sign of the coefficients suggests that the association of teacher expectations with communication scores decreases for students with high reading scores and with high math scores. It should be noted that the effect size<sup>2</sup> is small.

**Research objective 4. Analyzing the relationship between teachers expectations and further academic achievements mediated by goal achievement**

To address the task at hand, a multilevel mediation analysis was conducted with a goal achievement as the mediator. The results show a clear connection between the expectations established by teachers during the early stages of the second grade and the academic achievements

---

<sup>2</sup> The variables were previously standardized [Lorah, 2018].



of students at the beginning of third grade, in both mathematics and reading. This relationship persists even when considering the students' performance at the beginning of second grade. Although the magnitudes of the coefficients on the teacher expectation variable vary by subject. Thus, in math, the effect size<sup>3</sup> is larger than in reading (0.2 vs. 0.14)

The connection between teacher expectations and reading and math scores is mediated by goal achievement. However, it is important to note that the influence of this mediating variable is modest.

### 3. Conclusion

Teacher expectations have been researched in educational psychology for over 50 years. Nevertheless, there remain unresolved matters in this domain. This research allowed us to deepen our knowledge in this area.

The research has once again shown that the formation of teacher expectation is quite complex. The study examined how teacher expectations are related to students' academic performance and social-emotional skills.

Teacher expectations were found to be related to academic performance and social-emotional skills at the beginning of the first grade, which is consistent with many studies (e.g., [Jussim, 1989; Mistry, White, Benner, and Huynh, 2009; Timmermans, de Boer, and van der Werf, 2016]). However, the information given to teachers about students' academic performance and social-emotional skills at the beginning of the year does not predict the teachers' expectations by the end of the school year.

There are several possible explanations for the lack of impact from additional reports. One possibility is that teachers may have already had expectations before the study. Another explanation could be that teachers may be more focused on the behavior they observe directly in the school setting, rather than relying solely on the results of independent assessments. Additionally, the absence of additional methodological support for the teachers in the experimental group, such as specialized training and consultation, could contribute to the lack of effect. Research has shown that without proper support and the teachers' acceptance of interventions, experimental studies may not yield the intended results [De Boer, Timmermans, and van der Werf, 2018].

The findings reveal that Russian teachers' expectations are influenced equally by academic performance and social-emotional skills. This outcome sets it apart from previous studies which note that the relationship between teacher expectations and academic performance is stronger than between teacher expectation and social-emotional skills (see, for example, [Timmermans, de Boer, and van der Werf, 2016]). Further examination of the patterns of the correlation between social-emotional skills and teacher expectations demonstrated that certain skills have an independent influence on expectations, while others alter the strength and direction of this relationship based on students' academic achievements. For example, self-control has an independent effect on teacher expectations, while communication skills have a compensatory effect. The reason why communication skills have a compensatory effect could be that they enable children to confidently approach adults, ask questions, and clearly express their needs. Teachers can expect academic success from students with such skills, even if they currently have low academic performance.

The experiment made it possible to investigate the teacher expectancy effect. Theoretically speaking, we hypothesized that a teacher's knowledge about different student groups could potentially influence their behavior, impacting the academic performance of their students

---

<sup>3</sup> The variables were previously standardized [Lorah, 2018].

throughout the school year. The teacher's time spent with a student compared to their classmates was considered as a measure of teacher behavior. It was found that teachers having information about a student's group membership was indirectly related to student outcomes through time, but only for the group of students with advanced academic skills and developing social-emotional skills.

These results can be explained by the fact that Russian teachers see their main task in the formation of subject (cognitive) skills [Gasinets, Kapuza, Dobryakova, 2022], and believe that the role of parents and family in the formation of social-emotional skills has a stronger impact [Strukova et al., 2023]. Teachers also said in interviews that they strive to level their students by the middle of the first grade. It is likely that a teacher's receipt of information that a student's academic performance is above average and developing social-emotional skills allows the teacher to discern mismatches in profiles [Südkamp et al., 2017] and adjust their work with such students.

The study also tested the goal achievement mediated effect of teacher expectations on student academic achievement.

The results show that teacher expectations at the beginning of second grade are positively related to students' performance on goal achievement, which is consistent with research that noted that teachers with high expectations tend to teach their students to set and achieve goals [Rubie-Davies, 2008]. Goal achievement is positively related to academic performance, and to some extent mediates the relationship between teacher expectations and academic achievement, although the effect size is small and the magnitude of the direct effect of teacher expectations is still relatively high.

The weakness of the mediated relationship might stem from the potential precision of teacher expectations [Jussim, 1989]. A large proportion of teachers in the sample had more than 20 years of experience, and research shows that experienced teachers are more accurate in their predictions compared to less experienced teachers [Seidel, Schnitzler, Kosel, 2021].

### **Novelty of the results**

This study makes a valuable contribution to the current theoretical approaches that seek to explain the impact of teacher expectations.

First, the study finds that a high starting level of communication skills has a compensatory effect on teacher expectations. If a first-grader has strong communication skills but low academic performance, teachers will have higher expectations for them compared to a student with the same academic performance but weaker communication skills.

Second, additional information about the presence of heterogeneous groups of students in a class is reflected in teachers' interactions with students with advanced levels of academic performance and developing social-emotional skills.

Third, teacher expectations are positively related to students' goal achievement.

Fourth, the impact of teachers' expectations on students' academic achievements is partially influenced by the student's ability to achieve their goals.

### **Practical significance**

First, the experiment allowed us to test a primary version of student group reports and primary recommendations about strategies for interacting with children from different groups. The results indicate that the availability of group information is indirectly related to the performance of students from the group with advanced academic skills and developing social-emotional skills.

Thus, it is desirable to supplement standardized START test reports with information about student groups.

Second, the findings can be used to expand teacher training and professional development programs. Teachers can benefit from understanding how students' academic performance and social-emotional skills affect their expectations of students. This understanding can help to minimize the halo effect during student assessments and promote better mutual understanding between teachers and students. Reflecting on their own perceptions of students can contribute to this improvement.

### **Key conclusions**

1. The availability of information about students in heterogeneous groups, including their assigned academic and social-emotional characteristics, is not associated with teacher expectations.
2. The availability of information about student groups has an indirect impact on the academic performance of specific groups of students who have different academic and social-emotional skills.
3. Teachers' expectations are predicted by the student's starting levels of self-control and communication skills, but the patterns of these relationships are different: the starting level of students' communication skills has a compensatory effect on the teacher's expectations, while self-control skills have an independent effect.
4. Students' goal achievement mediates the relationship between teachers' expectations and students' academic performance.

### **Limitations**

The pandemic forced schools to adopt distance learning in the second half of the year during the experiment, potentially impacting the outcomes. However, it is not possible to statistically assess whether the switch to distance learning affected the results of the study.

Limitations in the study were observed in the assessment of students' social-emotional skills at the start of first and second grade, as well as in the measurement of the variable "teacher time spent with a particular student". Teacher survey results were used as measures of social-emotional skills. The study may not have accurately assessed the true extent of social-emotional skills but rather relied on the teacher's perceived level. The teacher's perception could also be influenced by biases like the halo effect or a shift to the mean. The relationship between measurement and students' diagnosis could have been different if more objective measures, such as using scenario-type tasks, had been used. The teacher's self-reported opinion about the time given to students could potentially be inaccurate.

### **References.**

1. Babad, E., Inbar, J., & Rosenthal, R. (1982). Pygmalion, Galatea, and the Golem: Investigations of biased and unbiased teachers. *Journal of Educational Psychology*, 74(4), 459–474. doi:10.1037/0022-0663.74.4.459
2. Cooper, H., & Good, T.L. (1983). Pygmalion grows up: studies in the expectation communication process.
3. De Boer H., Timmermans A.C., van der Werf M.P.C. (2018) The Effects of Teacher Expectation Interventions on Teachers' Expectations and Student Achievement: Narrative

- Review and Meta-Analysis. *Educational Research and Evaluation*, vol. 24, no 3–5, pp. 1–21. doi:10.1080/13803611.2018.1550834
4. Federiakin D., Larina G., and Kardanova E. (2021). Measuring Basic Mathematical Literacy in Elementary School. *Voprosy Obrazovaniya / Educational Studies Moscow*, no. 2 (June), 199-226. <https://doi.org/10.17323/1814-9545-2021-2-199-226>.
  5. Gasinets M., Kapuza A., and Dobryakova M. (2022). “Teachers’ Agency in Shaping the Educational Success of Schoolchildren: Roles and Beliefs”. *Voprosy Obrazovaniya / Educational Studies Moscow*, no. 1 (March), 75-97. <https://doi.org/10.17323/1814-9545-2022-1-75-97>
  6. Gentrup S., Lorenz G., Kristen C., Kogan I. (2020) Self-Fulfilling Prophecies in the Classroom: Teacher Expectations, Teacher Feedback and Student Achievement. *Learning and Instruction*, vol. 66, no 5, Article no 101296. <http://dx.doi.org/10.1016/j.learninstruc.2019.101296>
  7. Good T., Brophy J.E. (2008) *Looking in Classroom*. Pearson Education.
  8. Hox J. (2002) *Multilevel Analysis: Techniques and Applications*. Mahwah, NJ: Lawrence Erlbaum. <http://dx.doi.org/10.1037/0022-0663.97.2.184>
  9. Johnston, O., Wildy, H., & Shand, J. (2019). A decade of teacher expectations research 2008–2018: Historical foundations, new developments, and future pathways. *Australian Journal of Education*, 63(1), 44–73. <https://doi.org/10.1177/0004944118824420>
  10. Jussim L. (1989) Teacher Expectations: Self-Fulfilling Prophecies, Perceptual Biases, and Accuracy. *Journal of Personality and Social Psychology*, vol. 57, no 3, pp. 469–480. <https://doi.org/10.1037/0022-3514.57.3.469>
  11. Kardanova E., Ivanova A., Sergomanov P., Kanonire T, Antipkina I., and Kayky D. (2018). “Patterns of First-Graders’ Development at the Start of Schooling: Cluster Approach Based on the Results of IPIPS Project”. *Voprosy Obrazovaniya / Educational Studies Moscow*, no. 1 (March), 8-37. <https://doi.org/10.17323/1814-9545-2018-1-8-37>
  12. Kolen, M. J., & Brennan, R. L. (2013). *Test equating: Methods and practices*. Springer Science & Business Media.
  13. Li, C., Song, Y., Wang, Q., & Zhang, B. (2021). How Does Self-Control Affect Academic Achievement of Adolescents? The Dual Perspectives of Teacher-Student Relationship and Mastery Approach Goals. *Youth & Society*, 0044118X2110309. doi:10.1177/0044118x211030949
  14. Lorah J. (2018) Effect Size Measures for Multilevel Models: Definition, Interpretation, and TIMSS Example. *Large-Scale Assessments in Education*, vol. 6, no 1, pp. 1–11. <http://dx.doi.org/10.1186/s40536-018-0061-2>
  15. Mistry R.S., White E.S., Benner A., Huynh V.W. (2009) A Longitudinal Study of the Simultaneous Influence of Mothers’ and Teachers’ Educational Expectations on Low-Income Youth’s Academic Achievement. *Journal of Youth and Adolescence*, vol. 38, no 6, pp. 826–838. <https://doi.org/10.1007/s10964-008-9300-0>
  16. Moeller, A. J., Theiler, J. M., & Wu, C. (2012). Goal setting and student achievement: A longitudinal study. *The Modern Language Journal*, 96(2), 153-169.
  17. Obukhov A.S., *Psychological and pedagogical interaction of participants in the educational process: textbook and workshop for universities / Ed. by A. S. Obukhov. - Moscow: Yurayt Publishing House, 2021. - 422 p.*

18. Orel E. A., Kulikova (Ponomareva) A. A. Analysis of psychometric characteristics of a tool for assessing social-emotional skills in elementary school // *Journal of Modern Foreign Psychology*. 2018. T. 7. No. 3. P. 8-17.
19. Orel E., Brun I., Kardanova E., Antipkina I. (2018) Developmental Patterns of Cognitive and Non-Cognitive Skills of Russian First-Graders. *International Journal of Early Childhood*, vol. 50, no 3, pp. 297–314. doi:10.1007/s13158-018-0226-8
20. Raudenbush S.W., Bryk A.S. (2002) *Hierarchical Linear Models: Applications and Data Analysis Methods*. Thousand Oaks, CA: Sage.
21. Reynolds D. (2007) Restraining Golem and Harnessing Pygmalion in the Classroom: A Laboratory Study of Managerial Expectations and Task Design. *Academy of Management Learning & Education*, vol. 6, no 4, pp. 475–483. <https://doi.org/10.5465/amle.2007.27694947>
22. Rosenthal R., Jacobson L. (1968) Pygmalion in the Classroom. *The Urban Review*, vol. 3, no 1, pp. 16–20.
23. Rubie-Davies C.M. (2003) *Expecting the Best: Instructional Practices, Teacher Beliefs and Student Outcomes* (PhD Thesis), Auckland: The University of Auckland. Available at: <https://researchspace.auckland.ac.nz/handle/2292/28> (accessed 20.02.2023).
24. Rubie-Davies C.M. (2008) Teacher Beliefs and Expectations: Relationships with Student Learning. *Challenging Thinking about Teaching and Learning* (eds C.M. Rubie-Davies, C. Rawlinson), New York: Nova Science Publishers, pp. 25–40.
25. Seidel, T., Schnitzler, K., Kosel, C., Stürmer, K., & Holzberger, D. (2021). Student characteristics in the eyes of teachers: Differences between novice and expert teachers in judgment accuracy, observed behavioral cues, and gaze. *Educational Psychology Review*, 33, 69-89.
26. Strukova A., Iurchik E., Petrakova A., Kanonire T., Orel E., & Kulikova A. (2023) Primary School Teachers' Beliefs on Students' Socio-Emotional Development. *Voprosy Obrazovaniya / Educational Studies Moscow*, (2). <https://doi.org/10.17323/1814-9545-2023-2-187-213>
27. Südkamp A., Praetorius A.-K., Spinath B. (2017) Teachers' Judgment Accuracy Concerning Consistent and Inconsistent Student Profiles. *Teaching and Teacher Education*, vol. 76, iss. 1, pp. 204–213. doi:10.1016/j.tate.2017.09.016
28. Sun H. (2021) The Influence of Teacher Expectation on Students' Achievement of Different Grades. *Proceedings of the 2021 4th International Conference on Humanities Education and Social Sciences (ICHESS 2021)*. Available at: <https://www.atlantispress.com/proceedings/ichess-21/125967060> (accessed 05.04.2023).
29. Timmermans A.C., de Boer H., van der Werf M.P.C. (2016) An Investigation of the Relationship between Teachers' Expectations and Teachers' Perceptions of Student Attributes. *Social Psychology of Education*, vol. 19. No 2, pp. 217–240. <https://doi.org/10.1007/s11218-015-9326-6>
30. Urgo K., Arguello J. (2023) Goal-setting in support of learning during search: An exploration of learning outcomes and searcher perceptions, *Information Processing & Management*, Volume 60, Issue 2, 2023, 103158, ISSN 0306-4573, <https://doi.org/10.1016/j.ipm.2022.103158>.
31. Wang, S., Rubie-Davies, C. M., & Meissel, K. (2018). A systematic review of the teacher expectation literature over the past 30 years. *Educational Research and Evaluation*, 24(3-5), 124–179. doi:10.1080/13803611.2018.1548798