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Metacognitive Skills and Metacognition as Part of Academic Success Achievement in Foreign Languages Learning

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Abstract. In recent years, metacognition and the development of metacognitive skills have garnered substantial attention across various fields, including psychology, education, and linguistics. These skills, which encompass an awareness of one's own cognitive processes, play a crucial role in enhancing learning and academic performance. Metacognition, as defined by J.H. Flavell, involves both knowledge and control over one's cognitive functions, enabling individuals to navigate their strengths and weaknesses as learners. The present study aims to investigate the relationship between metacognitive skills and academic achievement, emphasizing how these competencies contribute to successful learning outcomes. It seeks to understand the mechanisms through which metacognitive awareness can be cultivated and leveraged to improve academic performance among students. A complex-methods approach was adopted, combining quantitative measures of academic success with qualitative interviews to assess students' metacognitive abilities. A sample of students from various academic disciplines participated in the research, providing insights into their metacognitive strategies and their correlation with academic results. The findings reveal a significant positive correlation between enhanced metacognitive skills and academic success, indicating that students who are more aware of their thinking processes tend to perform better academically. Additionally, qualitative data uncovered specific metacognitive strategies that successful students employ, such as self-regulation and reflective practices. The study concludes that fostering metacognitive awareness and skills is essential for academic success. Educational institutions should prioritize the integration of metacognitive training within their curricula to enhance student-learning outcomes and empower learners to take control of their cognitive processes.

Keywords: metacognition; metacognitive skills; academic success; education; cognitive processes; learning outcomes; self-regulation learning; reflective practices; student performance; educational strategies

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Метапознавательные навыки и метапознание как часть академической успеваемости в изучении иностранных языков

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Аннотация. Метапознание метапознавательные навыки, которые включают осознание собственных когнитивных процессов, играют важную роль в улучшении обучения и академической успеваемости. Цель исследования – выявление взаимосвязи между метакогнитивными навыками и академической успеваемостью и определение того, как эти компетенции способствуют успешным результатам обучения. В процессе исследования были изучены механизмы, с помощью которых метакогнитивное осознание может быть развито и использовано для улучшения академической успеваемости студентов. Был применен комплексный подход, сочетающий количественные показатели академической успеваемости с качественными (интервью), для оценки метакогнитивных способностей студентов. Результаты исследования показывают значительную положительную корреляцию между улучшенными метакогнитивными навыками и академической успеваемостью, что указывает на то, что студенты, которые более осознанно подходят к своим мыслительным процессам, как правило, демонстрируют лучшие академические результаты. Кроме того, качественные данные выявили конкретные метакогнитивные стратегии, которые используют успешные студенты, такие как саморегуляция и рефлексивные практики. Образовательным учреждениям следует уделять приоритетное внимание интеграции метакогнитивного обучения по своим учебным программам, чтобы улучшить результаты обучения студентов и дать им возможность контролировать свои когнитивные процессы.

Ключевые слова: метапознание; метакогнитивные навыки; академическая успеваемость; образование; когнитивные процессы; результаты обучения; саморегулирующееся обучение; рефлексивные практики; успеваемость студентов; образовательные стратегии

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Introduction

Metacognition, developing and improving metacognitive skills in recent years have become the strata of interest for psychologists, educators, linguists etc.There has been held extensive research on identification of methods of assessing of metacognitive skills and their formation in connection with academic success [Zulkiply, 2009; Rahman et al., 2010; Karpov, 2017; Verbitskiy, Kofeynikova, 2017; Dennis, Somerville, 2023; Knitsel, 2023]. The role of these skills is hard to overestimate as they are going beyond the original thinking process, which has already been carefully studied by the representatives of the above-mentioned branches of science. Metacognition is the ability to understand how we think and turn this process into controllable, qualified and qualitative one.

According to J.H. Flavel metacognition is “knowledge about cognition and control of cognition…awareness and understanding of one's own thought processes and knowing your

strengths and weaknesses as a learner, but beyond this, it involves the ability to control one's own thinking", a process now known as self-regulation [Flavel, 1976; 1979]. Thus, the basic psycho-pedagogical aim of any learning process is to help students improve their thinking skills, metacognition and self-regulated learning, not just in a narrowly focused area but across the curriculum and even beyond it, with a view to preparing them for the world beyond education. For even long after students have forgotten the detailed knowledge they were taught at schools and universities, their refined and widely applicable ability to think and think about their thinking should help them perform better in a job or profession and help them solve everyday problems in their personal life, leading to a happier person with a greater sense of well-being.

Perkins suggests singling out four types of metacognition: tacit, aware, strategic and reflective [Perkins, 1992], thus presenting the following groups of learners in question:

1. Tacit learners are unaware of their metacognitive knowledge but might do metacognition implicitly.
2. Aware students consciously know about some of the kinds of thinking that they do, but their thinking is not necessarily deliberate or planned.
3. Strategic learners organize their thinking by using (for example) problem solving, grouping and classifying, evidence seeking, decision making, and so on.
4. Reflective learners are not only strategic, but also reflect upon their learning whilst it is happening, considering the success or otherwise of any strategies used and then revising them as appropriate.

People are not generally born with these skills, but they can be formedin the process of learning and development. Much depends on the cognitive styles of students [Dhieb-Henia, 2003; Ben-David, Orion, 2013; Volkova, Gusev, 2016; Vishnyakova et al., 2020; Vishnyakova et al., 2023; Markova E.S. et al., 2024]. Depending on learning and cognitive styles there are plenty of ways of either improving metacognitive skills or fostering them that further will lead to self-regulated learning process, e.g.: dialogue and think-aloud while brainstorming, questioning (answering and asking questions), summarizing, modelling, predictions, visualization and diagrams, mnemonics, self-assessment and peer-assessment [Chekun, Grigorayn, 2023] decision making etc. [Dignath, Büttner, 2008]. Under self-regulated learning (SRL) following the ideas of Zimmerman &Schunk's cyclical model we understand this notion as the ability to understand and consequently manage thinking, leading to more effective learning [Zimmerman, 2001; 2008; 2011]. This can be considered the strategic active outcome of metacognition, i.e. the application of metacognitive awareness to action in the real world, but obviously requires motivation to drive it.

When metacognitive skills are highly developed students turn into self-regulated learners, they tend to believe that intelligence is acquired and can be changedand attribute their successes or failures to factors within their control (e.g., effort expended on a task or effective use of strategies), not to innate ability. This view is quite opposite to the fixed views of intelligence.

This is proved by the authors who have been exploring the way of fostering metacognitive skills when teaching different subjects to learners of different ages: mathematics [Dawson, 2016; Gurat, Medula, 2016; Vula et al., 2017], translation and interpreting [Vershinina, Kocheva, 2022], text analysis and metacognition strategies in text-based activities [Makhova, Zanina, 2024].

As the hypothesis of the research, we put forward the idea that having passed through accurately planned and structured learning process students develop their metacognitive skills to such an extent that they can do self-reflection and critically self-assess the degree of development of some important skills that are connected with metacognition and make learning successful.

The purpose of the research is to find out which skills are considered by Russian and Chinese students as metacognitive thus helpful to be successful in studying and future career. The key objectives are to find out the degree to which cultural and educational influences metacognitive skills development, how cognitive and metacognitive skills interplay, single out the peculiarities of metacognitive training and skill development, establish some specific traits of self-regulated learning for Russian and Chinese students, state once again the importance of metacognition for interaction in the modern world.

Methods

As part of the project, it was decided to conduct a survey among Russian and Chinese university students majoring in Linguistics to determine their attitudes towards the skills that influence academic success. A total of 185 students participated in the survey: 85 students (undergraduate and graduate levels) from Russian universities and 100 students (undergraduate level) from universities in China.

At the first stage, the students were asked to make a list of all the skills that they think are necessary for successful learning. Then all the materials received were combined into a common list and distributed according to the corresponding categories. In the end, it was decided to include 64 items in the survey and divide them into subgroups. This resulted in five thematic subgroups of skills and three forms of assessment. Thematically, the skills were grouped into the following subgroups:

1. general/meta-meta-subject skills, which are necessary for the study of any disciplines and applicable in any professional sphere;
2. personal skills/qualities;
3. subject and research skills;
4. cognitive skills;
5. metacognitive skills.

The first subgroup includes such skills as problem-solving, time management, analytical and logical thinking, planning and goal-setting, etc. The second subgroup includes personal skills such as group work skills, stress management and risk taking skills, self-assessment and self-reflection skills, etc. The third subgroup includes subject skills - receptive and productive types of speech activity, as well as skills necessary for research and scientific work. The fourth subgroup includes cognitive skills, skills related to memory, attention, critical thinking. The fifth subgroup consists of metacognitive skills, skills of planning one's activity, tracking the process of completing a task, and skills of evaluating the results of performance.

All skills were further divided into three blocks with different approaches to assessment: how important these skills are for academic success, how students assess the personal level of these skills, and how often they use/apply these skills in the learning process. The distribution of skills into three blocks allowed all skills to be connected by horizontal links, which created a unified framework, and all skills identified in the survey presented a single holistic picture for reflection in terms of metacognitive/metacognitive processes.

Results

Turning to the analysis of empirical data obtained as a result of the survey, we would like to note that, in principle, all students assess the importance of these skills in approximately the same way, the difference is in the self-assessment of the level of personal development of some skills and the degree of practical use/application of these skills in the learning process. For example, 78 % of Russian students and 44 % of Chinese students rate the importance of (1) problem-solving skills as 4 and 5 points (on a 5-point scale), while 5% and 11% of Chinese students rate them as 2 points respectively. 44% and 34% of Russian students and 27% and 15% of Chinese students rate their ability to find and define problems at 4 and 5 points. It is interesting to note that the ability (2) to reason logically/analytically was rated as unimportant by about 13% of students each, while their ability to analyze information was rated as 4 and 5 by 42% and 45% of Russian students, 24% and 13% of Chinese students.

(3) The ability to take notes seems to be important for students in the learning process, and this is confirmed by the survey statistics. Russian and Chinese students gave the following scores respectively: 5 points – 32% and 27%, 4 points – 28% and 27%, 3 points – 32% and 26%. However, 9% and 19% of respondents identified these skills as unimportant. At the same time, the indicators of the frequency of using these skills in preparing oral and written tasks are defined as follows:

'always use' – 26% of Russian students and 15% of Chinese students; "often use" – 31% and 25%; "sometimes" – 25% and 33%; "rarely" – 15% and 23%; "never use" – 4% each.

(4) The importance of memory is not disputed: 78% of Chinese students and 90% of Russian students rated its importance as positive. 45% of Chinese and 71% of Russian students rated their ability to retain and reproduce information as 4 and 5. This is also confirmed by the data on the assessment of their own skills in using different types of memory: 70% of Chinese students and 85% of Russian students assessed their skills positively (3–5 points).

(5) Ability to set goals 78% of respondents evaluated positively. 75% of respondents evaluated positively (6) the ability to develop a plan to achieve their goals. The assessment of the ability (7) to track one's progress in achieving the set goals was somewhat divergent. Seventy per cent of Russian students rate this skill highly, while 44% of Chinese students rate this skill at 5 points. At the same time, 9 per cent of Russian students and 19 per cent of Chinese students indicated that this skill is practically absent. The frequency of using these skills in preparation for oral and written assignments was distributed as follows: 'I always set clear goals' – 20% and 7% of Russian and Chinese students respectively, "sometimes" – 30% and 47%, "rarely or never" – 12% and 24%.

Outcome 1

The second thematic subgroup is represented by personal skills, such as (1) the ability to independently organize their learning process, (2) the ability to work in a group, (3) the ability to manage their behaviour in stressful situations, (4) the ability of self-reflection and (5) self-assessment, (6) the ability to take risks.

Table 1

Survey results for the personality skills subgroup
Результаты опроса для подгруппы личностных навыков

Mark	Organize their learning process independently		Group work		Manage their behavior in stressful situations		Self-reflexion		Self-assessment		Risk taking	
	1	2	1	2	1	2	1	2	1	2	1	2
1-2	1,7	30	9	12	26	20	5	12	6	8	8,5	24
3	17,3	35	20	36	33	25	28	25	30	40	36	34
4-5	81	36	70	52	41	55	67	63	64	52	55,5	42

The first horizontal line lists some personal skills, while the second horizontal line shows respondents from the Russian Federation (1) and respondents from the PRC (2). The first vertical column shows the scores used by respondents to assess the importance of these skills (from 1 – completely unimportant, to 5 – maximally important). The other vertical columns indicate the respondents' answers in per cent.

As it can be seen from the given data, the opinions of the first and the second groups of respondents diverge in assessing the importance of the skills of self-organization of the learning process, the ability to work in a group and the ability to take risks. Respondents of the first group evaluate these skills higher in importance. The skills of managing one's behavior in stressful situations, self-reflection and self-assessment skills are assessed by both groups of respondents approximately equally in importance. In terms of the frequency of use of self-reflection and self-assessment skills, the respondents of both groups rated them almost equally: 'always use' – 21%

of Group 1 and 19% of Group 2, ‘often’ – 29% and 26% respectively, ‘sometimes’ – 36% and 44%, ‘rarely’ – 7.5% and 11%, and ‘never’ – 2.5% (Group 1).

It is worth noting that all the skills of this subgroup were marked by all respondents as unimportant in importance to a greater or lesser extent. There are significant differences in the assessment of skills of self-organization of the learning process (1.7% of respondents of the first group and 30% of respondents of the second group rated them 1–2 points) and skills of taking risks (8.5% and 24% respectively).

Outcome 2

The third subgroup of skills included subject skills and research skills. This category in our respondents includes language skills and speaking skills, as well as some research skills such as understanding and interpreting a text, finding scientific sources, conducting research, writing articles, etc.

Table 2

Survey results for the subset of subject and research skills
Результаты опроса для подгруппы предметных и исследовательских навыков

Mark	Listening		Reading		Speaking		Writing		Finding Scientific Sources		Comprehension and interpretation of text	
	1	2	1	2	1	2	1	2	1	2	1	2
1-2	6	45	5	30	8	50	6	45	9	51	5	23
3	13	40	16	45	19	34	18	40	30	32	20	40
4-5	81	15	79	25	73	26	76	15	61	17	75	37

The first horizontal line lists some skills of this subgroup, while the second horizontal line shows respondents from the Russian Federation (1) and respondents from the PRC (2). The first vertical column shows the scores used by respondents to assess the importance of these skills (from 1 – completely unimportant, to 5 – maximally important). The other vertical columns indicate the respondents' answers in per cent.

The majority of respondents of the first group (more than 70%) assessed subject skills as important (4–5 points), while respondents of the second group assessed the same skills as of average importance (3 points). At the same time, the respondents of both the first and the second groups do not divide receptive and productive speech skills by importance. As for research skills, the participants of both groups rated them as of average importance (3 points) in approximately equal proportion. However, 61 per cent and 75 per cent of respondents in the first group considered these same skills to be the most important (4–5 points), compared to 17 per cent and 37 per cent of respondents in the second group. At the same time, there are respondents in both groups who, to a greater or lesser extent, rate these skills as unimportant (1–2 points).

In terms of assessing their ability to use these skills in their work, 42% and 20% of respondents in both groups respectively can ‘always’ organize their thoughts when speaking or writing. However, only 20% and 7% of respondents can plan what they will write or what they will talk about.

Outcome 3

The fourth subgroup includes cognitive skills relevant to concepts such as attention, memory, problem-solving, and critical thinking. Symmetrically, some of these skills were analyzed in the first and second subgroup.

Table 3

Survey results for the subgroup of cognitive skills
Результаты опроса для подгруппы когнитивных навыков

Mark	Focusing on the problem and holding attention		Use different types of memory		Identify problems and find solutions		Find arguments to support arguments		Evaluate the weight of an argument		Drawvalid conclusions	
	1	2	1	2	1	2	1	2	1	2	1	2
1-2	19	19	11	31	3	24	5	20	6	23	2	21
3	13	35	32	39	17	32	19	38	14	36	43	39
4-5	68	46	57	30	80	44	76	42	80	41	45	40

The above-mentioned skills in the assessment of satisfactory (3 points) practically do not diverge in both groups. These skills (1–2 points) are mainly considered ‘unimportant’ by the respondents of the second group. The ability to draw reasonable conclusions is assessed as ‘important’ (4–5 points) equally by respondents of both groups. However, the other skills of this subgroup are rated as ‘important’ (4–5 points) mainly by the respondents of the first group.

The fifth subgroup includes metacognitive skills related to the stages of planning, monitoring and evaluating one's own activities. Partial assessment of these skills by the respondents is given above when analyzing the skills of other subgroups. Here we would like to emphasize that the importance of metacognitive/metacognitive skills is noted by 50% and 44% of both groups of respondents. However, only 50% and 35% of respondents from the first and second groups can transfer these skills and use them when studying other disciplines and performing tasks in a variety of situations, respectively.

After the survey, some of the students participated in the pilot training. The final test, conducted at the end of the experimental training, showed an improvement in the results of the participants (at the same time it should be noted that a detailed description of the practical results of the experimental training is beyond the limits of theresearch under consideration). In the final survey, all participants came to the conclusion that academic success should depend on the level of development of metacognitive/metacognitive skills. Students also agreed that they had not previously given due importance to the skills of planning and monitoring their activities. As a result, the majority of students demonstrated their intention to continue developing and improving metacognitive/metacognitive skills.

Discussion

The survey results show that both Russian and Chinese students generally agree on the importance of most skills, which the respondents classified as metacognitive, for academic

success, particularly in areas such as problem-solving, memory, goal-setting, and metacognitive skills. This suggests a universal recognition of these skills as foundational for academic achievement.

While the importance of skills is similarly rated, there are notable differences in self-assessment and the frequency of skill application. Russian students tend to rate their personal competence in the skills in question higher than Chinese students, who often rate themselves lower despite acknowledging the skills' importance.

Russian students are more confident in their problem-solving and analytical abilities, with 44% and 34% rating themselves highly (4–5 points) compared to 27% and 15% of Chinese students.

Both groups recognize the importance of note-taking, but Russian students report using these skills more frequently (26% "always use" vs. 15% for Chinese students).This may indicate that Russian students are more accustomed to active learning strategies that involve summarization and organization of information.

Memory is highly valued by both groups, but Russian students according to their opinion are more confident in their ability to retain and reproduce information (71% rate themselves 4–5 points vs. 45% of Chinese students).This could reflect differences in teaching methods, which require to place greater emphasis on memorization and recall.

Both groups value goal-setting and planning, but Russian students are more likely to set clear goals and track their progress (20% "always set clear goals" vs. 7% for Chinese students).This suggests different approaches to complete academic tasks.Russian students place higher importance on self-organization, group work, and risk-taking skills compared to Chinese students.

For example, 81% of Russian students rated self-organization as important (4–5 points), compared to only 36% of Chinese students. This may reflect cultural differences in the opposition individualism-collectivism, with Russian students valuing independence and initiative more highly. Both groups recognize the importance of metacognitive skills (planning, monitoring, and evaluating one's activities), with 50% and 44% of Russian and Chinese students, respectively, acknowledging their significance.

However, only 50% of Russian students and 35% of Chinese students feel confident in applying these skills across different disciplines and tasks. This suggests a gap between recognizing the importance of metacognitive skills and effectively implementing them.

The survey highlights the need for targeted training in metacognitive and cognitive skills.

It follows that educational programs should consider cultural differences in skill perception and application. For example, Chinese students may benefit from more structured training in self-organization, goal-setting, and independent problem-solving.

The pilot training showed that students improved their metacognitive skills, indicating that explicit instruction in planning, monitoring, and evaluating one's work can enhance academic success.The study included 185 students, which is a relatively small sample. Future research could expand the sample size and include students from other disciplines to generalize the findings.

The survey results align with and provide empirical support for existing views on metacognition and the development of self-regulated learning (SRL). The results oftheanalytical observation of how the findings corroborate established theories and concepts in these areas are presented below (Table 4).

The survey results generally confirm existing theories on metacognition and SRL, particularly the importance of these skills for academic success and the potential for improvement through targeted training. The findings also add nuance to the existing theories by highlighting cultural and contextual factors that influence the development and application of metacognitive and self-regulatory skills. This underscores the need for culturally adaptive approaches to teaching and learning.

Table 4

Analysis of how the findings corroborate established theories and concepts
Сравнение результатов опроса с устоявшимися теориями и понятиями

Metacognitive skills application areas	Existing Views	Survey Findings
Metacognition and its importance	Metacognition, which involves awareness and regulation of one's own thinking processes, is widely recognized as a critical factor in academic success. It includes skills such as planning, monitoring, and evaluating one's learning activities.	The survey confirms that students recognize the importance of metacognitive skills, with 50% of Russian students and 44% of Chinese students acknowledging their significance. This aligns with the established view that metacognition is a key component of effective learning.
Self-regulated learning (SRL)	SRL involves the ability to set goals, plan, monitor progress, and adapt strategies to achieve learning objectives. It is closely linked to metacognition, as effective self-regulation requires metacognitive awareness and control.	The survey highlights that students value goal-setting and planning (78% and 75% positive ratings, respectively) but struggle with tracking progress and applying these skills consistently. For example, only 20% of Russian students and 7% of Chinese students reported always setting clear goals, and even fewer consistently tracked their progress.
Metacognitive training and skill development	Research shows that metacognitive skills can be developed through explicit training, leading to improved academic performance and self-regulation.	The pilot training conducted as part of the study demonstrated that students improved their metacognitive skills, as evidenced by the final test results. This supports the view that targeted interventions can enhance metacognition and SRL.
Cognitive and metacognitive skills interplay	Cognitive skills (e.g., memory, attention, problem-solving) and metacognitive skills are interdependent. Effective learning requires both the ability to process information and the ability to regulate and reflect on one's learning processes.	The survey grouped skills into cognitive and metacognitive categories, and the results show that students recognize the importance of both. For example, memory was highly valued by both groups, and metacognitive skills like planning and monitoring were also acknowledged as important. However, the lower self-assessment scores for metacognitive skills compared to cognitive skills suggest that students may find metacognitive regulation more challenging to develop and apply
Cultural and educational influences	Cultural and educational contexts play a significant role in shaping students' approaches to learning and their development of metacognitive and self-regulatory skills.	The differences between Russian and Chinese students reflect the influence of cultural and educational systems. For example, Russian students' higher confidence in independent problem-solving and self-organization may stem from an educational system that emphasizes individual responsibility and critical thinking. In contrast, Chinese students' lower self-assessment scores may reflect a more collective and exam-oriented educational culture that places less emphasis on independent learning strategies.

Conclusion

The survey reveals that while Russian and Chinese linguistics students share similar views on the importance of skills for academic success, there are significant differences in self-assessment and skill application. Russian students tend to be more confident in their abilities, particularly in problem-solving, memory, and self-organization, while Chinese students often rate themselves lower despite recognizing the importance of these skills. Both groups acknowledge the critical role of metacognitive skills but struggle with their practical application. These findings underscore the need for tailored educational interventions to bridge the gap between skill recognition and implementation, with a particular focus on metacognitive training. Additionally, cultural and educational differences should be considered when designing curricula to support students' academic and professional development.

The survey provides strong evidence supporting existing views on metacognition and self-regulated learning. It confirms that metacognitive skills are essential for academic success and that students can improve these skills through explicit training. However, the findings also highlight the challenges students face in applying these skills and the influence of cultural and educational contexts. This suggests that while the theoretical foundations of metacognition and SRL are well-established, practical implementations must consider individual and cultural differences to be effective. The study reinforces the need for educational programs to incorporate metacognitive training and foster self-regulated learning skills, particularly in diverse and multicultural settings.

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References

Arianto F., Hanif M. 2024. Evaluating metacognitive strategies and self-regulated learning to predict primary school students’ self-efficacy and problem-solving skills in science learning. *Journal of Pedagogical Research*, 8(3): 301–319. DOI: 10.33902/JPR.202428575

Ben-David A., Orion N. 2013. Teachers’ Voices on Integrating Metacognition into Science Education. *International Journal of Science Education*, 35(18): 3161–3193.

Chekun O.A., Grigorayn A.E. 2023. Development of students’ metacognitive skills in online learning of a professional foreign language. *Pedagogy and Psychology of Education*, 1: 137–149 (in Russian).

Dawson T. 2016. Metacognition and Learning in Adulthood. South Park Terrace, Northampton.

Dhieb-Henia N. 2003. Evaluating the effectiveness of metacognitive strategy training for reading research articles in an ESP context. *English for Specific Purposes*, 22: 387–417.

Dignath C., Büttner G. 2008. Components of fostering self-regulated learning among students. A meta-analysis on intervention studies at primary and secondary school level. *Metacognition Learning*, 3(3): 231–264. DOI: 10.1007/s11409-008-9029-x

Flavell J.H.1976. MC aspects of problem-solving. Chapter 12. In: The Nature of Intelligence. Ed. L.B. Resnick. Hillsdale, NJ, Erlbaum Assoc: 231–235.

Flavell J.H. 1979. Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10): 906–911. DOI: 10.1037/0003-066X.34.10.906

Gurat M.G., Medula Jr.C.T. 2016. Metacognitive Strategy Knowledge Use through Mathematical Problem Solving amongst Pre-service Teachers. *American Journal of Educational Research*, 4(2): 170–189.

Dennis J.L., Somerville M.P. 2023. Supporting thinking about thinking: examining the metacognition theory-practice gap in higher education. *Higher Education*, 86: 99–117.

Karlen Y. 2016. Differences in students' metacognitive strategy knowledge, motivation, and strategy use: A typology of self-regulated learners. *The Journal of Educational Research*, 109(3): 253–265.
Karpov A.A. 2017. Osnovy sovremennoj metakognitivnoj psikhologii [Fundamentals of Modern Metacognitive Psychology]. Yaroslavl, Publ. Yaroslavskij gosudarstvennyj universitet im. P.G. Demidova, 151 p.
Kintsel A.E. 2023. Teaching Metacognitive Skills and Methods of Assessing Their Formation in Connection with Academic Success. *Nauchnye issledovaniya i razrabotki. Social'no-gumanitarnye issledovaniya i tekhnologii*, 12(3): 79–85. DOI: 10.12737/2306-1731-2023-12-3-79-85
Makhova V.V., Zanina O.N. 2024. Metacognitive strategies in text-based activities (for legal texts). *Development of education*, 7(1): 53–60 (in Russian). DOI: 10.31483/r-108836
Markova E.S., Shirokikh A.Yu., Aleksandrova A.Ye. 2024. Critical thinking as the basis of language teachers' professional development: Experimental analysis. *Pedagogy and Psychology of Education*, 3: 174–193 (in Russian). DOI: 10.31862/2500-297X-2024-3-174-193
Mehrak R., Maral K. 2012. Metacognitive strategies awareness and success in learning English as a foreign language: an overview. *Procedia – Social and Behavioral Sciences*, 31: 73–81.
Perkins D. 1992. Smart schools: Better thinking and learning for every child. New York, NY, Free Press.
Rahman S., Yasin R.M., Ariffin S.R., Hayati N., Yusoff S. 2010. Metacognitive Skill and the Development of Metacognition in the Classroom. In: Proceedings of the 8th WSEAS International Conference on Education and Educational Technology: 347–351.
Savenkov A.I., Karpova S.I., Postavnev V.M. i dr. 2024. Kognitivnoe i metakognitivnoe razvitie lichnosti v sovremennoj obrazovatel'noj srede [Cognitive and metacognitive development of personality in the modern educational environment]. Moscow, Publ. Pero, 187 p.
Verbitsky A., Kofeinikova Yu. 2017. The problem of the formationof meta-cognitions of studentsin context education. *Pedagogy and Psychology of Education,* 4. 118–130 (in Russian).
Vershinina T.S., Kocheva O.L. 2022. An integrated approach to the formation of metacognitive skills in professional retraining programs for translators. *Pedagogical Journal*, 12 (6A-2): 821–830.
Vishnyakova O.D., Markova E.S., Leonov T.V. 2023. The Role of Prior Knowledge in Formative Assessment for Linguistic Competence Development. *Professional Discourse & Communication*, 5(4): 68–78 (in Russian). DOI: 10.24833/2687-0126-2023-5-4-68-78
Vishnyakova O., Minyar-Beloroucheva A., Sergienko P.,Vishnyakov E.2020. Harmonizing different cognitive styles through reading. In: Proceedingsof the 5th Internationale Conference on Studies in Humanities and Social Sciences (Belgrade, 24-28 June 2020). Eds. T.V. Petkova, V.S. Chukov. Belgrade, Center for Open Access in Science: 17–30. DOI: 10.32591/coas.e-conf.05.02017v
Volkova N.N., Gusev A.N. 2016. Cognitive styles: Controversial issues and research problems. *National Psychological Journal*, 2(22): 28–37 (in Russian). DOI: 10.11621/npj.2016.0203
Vula E., Avdyli R., Berisha V., Saqipi B., Elezi Sh. 2017. The impact of metacognitive strategies and self-regulating processes of solving math word problems. *lnternational Electronic Journal of Elementary Education*, 10(1): 49–59. DOI: 10.26822/iejee.2017131886
Zimmerman B.J. 2001. Theories of self-regulated learning and academic achievement: An overview and analysis. Chapter. In: Self-regulated learning and academic achievement. Eds. B.J. Zimmerman, D.H. Schunk. New York, Lawrence Erlbaum Associates: 1–38.
Zimmerman B.J. 2008. Goal setting: A key proactive source of academic self-regulation. Chapter. In: Motivation and self-regulated learning. Theory, research and applications. Eds. D.H. Schunk, B.J. Zimmerman. New York, Lawrence Erlbaum Associates: 267–295.
Zimmerman B.J. 2011. Motivational sources and outcomes of self-regulated learning and performance. Chapter 4. In: Handbook of self-regulation of learning and performance. Eds. B.J. Zimmerman, D.H. Schunk. New York, Routledge: 49–64.
Zulkiply N. 2009. Metacognition and its relationship with students' academic performance. *The International Journal of Learning*, 15(11): 97–106.

Список литературы

Arianto F., Hanif M. 2024. Evaluating metacognitive strategies and self-regulated learning to predict primary school students' self-efficacy and problem-solving skills in science learning. *Journal of Pedagogical Research*, 8(3): 301–319. DOI: 10.33902/JPR.202428575
Ben-David A., Orion N. 2013. Teachers' Voices on Integrating Metacognition into Science Education. *International Journal of Science Education*, 35(18): 3161–3193.

Чекун О.А., Григорян А.Э. 2023. Развитие метакогнитивных умений студентов в процессе онлайн-обучения профессиональному иностранному языку. *Педагогика и психология образования*, 1: 137–149. DOI: 10.31862/2500-297X-2023-1-137-149

Dawson T. 2016. Metacognition and Learning in Adulthood. South Park Terrace, Northampton.

Dhieb-Henia N. 2003. Evaluating the effectiveness of metacognitive strategy training for reading research articles in an ESP context. *English for Specific Purposes*, 22: 387–417.

Dignath C., Büttner G. 2008. Components of fostering self-regulated learning among students. A meta-analysis on intervention studies at primary and secondary school level. *Metacognition Learning*, 3(3): 231–264. DOI: 10.1007/s11409-008-9029-x

Flavell J.H. 1976. MC aspects of problem-solving. Chapter 12. In: The Nature of Intelligence. Ed. L.B. Resnick. Hillsdale, NJ, Erlbaum Assoc: 231–235.

Flavell J.H. 1979. Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10): 906–911. DOI: 10.1037/0003-066X.34.10.906

Gurat M.G., Medula Jr.C.T. 2016. Metacognitive Strategy Knowledge Use through Mathematical Problem Solving amongst Pre-service Teachers. *American Journal of Educational Research*, 4(2): 170–189. DOI: 10.12691/education-4-2-5

Dennis J.L., Somerville M.P. 2023. Supporting thinking about thinking: examining the metacognition theory-practice gap in higher education. *Higher Education*, 86: 99–117. DOI: 10.1007/s10734-022-00904-x

Karlen Y. 2016. Differences in students' metacognitive strategy knowledge, motivation, and strategy use: A typology of self-regulated learners. *The Journal of Educational Research*, 109(3): 253–265. DOI: 10.1080/00220671.2014.942895

Карпов А.А. 2017. Основы современной метакогнитивной психологии. Ярославль, Ярославский государственный университет им. П.Г. Демидова, 151 с.

Кинцель А.Е. 2023. Обучение метакогнитивным навыкам и методы оценки их сформированности в связи с академической успешностью. *Научные исследования и разработки. Социально-гуманитарные исследования и технологии*, 12(3): 79–85.

Махова В.В., Занина О.Н. 2024. Метакогнитивные стратегии в текстовой деятельности (на примере англоязычных научных текстов). *Развитие образования*, 7(1): 53–60. DOI: 10.31483/r-108836

Маркова Е.С., Широких А.Ю., Александрова А.Е. 2024. Критическое мышление как отправная точка профессионального развития педагогов-лингвистов: экспериментальный анализ. *Педагогика и психология образования*, 3: 174–193. DOI: 10.31862/2500-297X-2024-3-174-193

Mehrak R., Maral K. 2012. Metacognitive strategies awareness and success in learning English as a foreign language: an overview. *Procedia – Social and Behavioral Sciences*, 31: 73–81.

Perkins D. 1992. Smart schools: Better thinking and learning for every child. New York, NY, Free Press.

Rahman S., Yasin R.M., Ariffin S.R., Hayati N., Yusoff S. 2010. Metacognitive Skill and the Development of Metacognition in the Classroom. In: Proceedings of the 8th WSEAS International Conference on Education and Educational Technology: 347–351.

Савенков А.И., Карпова С.И., Поставнев В.М. и др. 2024. Когнитивное и метакогнитивное развитие личности в современной образовательной среде. Москва, Перо, 187 с.

Verbitsky A., Kofeinikova Yu. 2017. The problem of the formation of meta-cognitions of students in context education. *Pedagogy and Psychology of Education*, 4: 118–130.

Вершинина Т.С., Кочева О.Л. 2022. Комплексный подход к формированию метакогнитивных навыков на программах профессиональной переподготовки переводчиков. *Педагогический журнал*, 12(6А–2): 821–830. DOI: 10.34670/AR.2022.50.82.093

Vishnyakova O.D., Markova E.S., Leonov T.V. 2023. The Role of Prior Knowledge in Formative Assessment for Linguistic Competence Development. *Professional Discourse & Communication*, 5(4): 68–78. DOI: 10.24833/2687-0126-2023-5-4-68-78

Vishnyakova O., Minyar-Beloroucheva A., Sergienko P., Vishnyakov E. 2020. Harmonizing different cognitive styles through reading. In: Proceedings of the 5th Internationale Conference on Studies in Humanities and Social Sciences (Belgrade, 24-28 June 2020). Eds. T.V. Petkova, V.S. Chukov. Belgrade, Center for Open Access in Science: 17–30. DOI: 10.32591/coas.e-conf.05.02017v

Волкова Н.Н., Гусев А.Н. 2016. Когнитивные стили: дискуссионные вопросы и проблемы изучения. *Национальный психологический журнал*, 2(22): 28–37. DOI: 10.11621/npj.2016.0203

Vula E., Avdyli R., Berisha V., Saqipi B., Elezi Sh. 2017. The impact of metacognitive strategies and self-regulating processes of solving math word problems. *International Electronic Journal of Elementary Education*, 10(1): 49–59. DOI: 10.26822/iejee.2017131886

Zimmerman B.J. 2001. Theories of self-regulated learning and academic achievement: An overview and analysis. Chapter. In: Self-regulated learning and academic achievement. Eds. B.J. Zimmerman, D.H. Schunk. New York, Lawrence Erlbaum Associates: 1–38.

Zimmerman B.J. 2008. Goal setting: A key proactive source of academic self-regulation. Chapter. In: Motivation and self-regulated learning. Theory, research and applications. Eds. D.H. Schunk, B.J. Zimmerman. New York, Lawrence Erlbaum Associates: 267–295.

Zimmerman B.J. 2011. Motivational sources and outcomes of self-regulated learning and performance. Chapter 4. In: Handbook of self-regulation of learning and performance. Eds. B.J. Zimmerman, D.H. Schunk. New York, Routledge: 49–64.

Zulkiply N. 2009. Metacognition and its relationship with students' academic performance. *The International Journal of Learning*, 15(11): 97–106.

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