https://doi.org/10.31489/2025Ped1/20-29
UDC378.4 Received: 01.08.2024| Accepted: 09.01.2025

M. Ashirimbetova[1], D. Shayakhmetova[2]

[1] *Suleyman Demirel University, Almaty, Kazakhstan;*
[2]*Abai Kazakh National Pedagogical University. Almaty, Kazakhstan*
([*]Corresponding author's e–mail: madina.ashirimbetova@sdu.edu.kz)

[1]*ORCID: 0009-0000-8461-6352,*
[2]*ORCID: 0000-0001-8528-7386*

Model of Foreign Language Cognitive Competence Development

Throughout past decades, various scholars researched the development of foreign language cognitive competence. Cognitive competence, embracing abilities as problem-solving, critical thinking, reasoning and memory is crucial for effective functioning in various spheres of modern life. Despite the fact that there is a big number studies on cognitive development, there is a necessity for a panoramic model that incorporates multiple dimensions of foreign language cognitive competence and includes the reciprocation of individual and contextual factors. In Kazakhstani science it is mostly considered as a sub-competence of intercultural communicative competence (ICC). It was proposed by the authors of this article that special attention should be paid to foreign language cognitive competence and propose an overview of such a model and the learning outcomes for each of its stages. The key components of the proposed model include the stages and educational conditions of foreign language cognitive competence development, and instruments for foreign language cognitive competence measurement. Further investigations can focus on the refinement and extension of the model as well as its approbation and application in educational theory and practice.

Keywords: foreign language cognitive competence development, model, components, learning outcomes, educational theory and practice.

Introduction

Modern education and labor market require a critical skill set that shows the individual's ability to withstand the challenges and the rapidly changing conditions. Effective problem-solving, decision-making, flexibility are among these skills and they are considered to be referring to cognitive competence. Schneider & Shiffrin propose that cognitive competence is the capability of effective consideration, storage and retrieval of the information embracing a range of mental abilities (memory, reasoning, attention and comprehension) [1]. A set of these skills and abilities help an individual to adjust to novel situations and perform complex tasks, navigating in increasingly complicated environments [2]. In this light, the development of cognitive competence is a fundamental focus in education, psychology and professional training [3].

Kunanbayeva S.S. proposes that cognitive competence is one of the elements of ICC [4]. Developing this idea, the current article proposes that the foreign language cognitive competence (FLCC) should be considered as an independent competence and proposes a model for its development with ICC being the paramount aim of language learning. Cognitive competence, however, is not solely an individual attribute, but is also influenced by collective knowledge construction and sharing that occurs within a social context. The social nature of learning is justified by sociocultural theory that highlights importance of encounters with other people, culture-based tools and cooperative learning in the process of cognitive development [5]. Thus, the proposed model integrates insights from cognitive psychology and educational theory and practice. By this exploration the authors aim at contributing to the ongoing discourse about the cognitive development and offer practical implications for enhancing cognitive competence across different areas.

Methods and Materials

As the title proposes, Lev Vygotsky's theory was referred to as the founding grounds of the model. He proposed that learning occurs within a sociocultural context, and individuals acquire knowledge and skills through dealings with people who are more well-informed [5]. The theory of Zone of Proximal Development highlights scaffolding, when educators or more competent peers provide appropriate support to facilitate cognitive development. Based on Vygotskyan ideas, a Cognitive Development in Context approach was proposed, a concept emphasizing that cognitive development should be within real-world contexts, in natural-

istic settings and influences of the cultural contexts on the cognitive competencies [6]. The authors support this viewpoint.

As it was mentioned above the final aim of FLCC development is the mastery of ICC and the model Michael Byram is fundamental in this field. It shifted the focus of language education towards a more holistic approach with consideration of cultural and intercultural dimensions [7]. It proposes that the cultural content and intercultural skills should be enhanced together with the linguistic skills through usage of authentic materials, intercultural projects and cultural immersion [8]. The focus of traditional assessment of language skills should be shifted towards performance-based assessment, including role-plays and reflective journals. The language educators should be ready to include ICC to their classrooms. And also, they should be given instructions on how to manage any intercultural conflicts and encourage cultural awareness [9]. For the development of ICC, it is necessary for the language teachers to employ authentic materials, such as news articles, literature, films, and social media, as these reflect real-world cultural contexts. Besides that, experiential learning should be promoted through simulations, cultural exchanges and role-plays to develop discovery and interaction skills [10]. Furthermore, the students should be encouraged to apply critical reflection through self-reflection and correlation with the target culture [11]. The model proposed by the authors similarly highlights the importance of holistic assessment and focuses on application of varied real-world contexts in development of FLCC.

When referring to language tasks based on the students' cognitive demands and the contextual support, J. Cummins' work is among the contributions which have influenced the development of pedagogical practices and policies. The ""Cummins" Quadrant" theory is an influential framework which helps educators better comprehend and address various needs of the language learners [12]. Cummins' Quadrant helps educators understand that language tasks differ in complexity level and degree of available contextual assistance to the learners, and, thus, helps identify appropriate instructional strategies to facilitate language development. The model divides tasks into four quadrants, where each dimension represents a different combination of cognitive demand and contextual support. The framework can help teachers design appropriate language learning activities for the students. By locating a task within the quadrants, teachers can support the students better in their language improvement by expanding cognitive demand and reducing contextual support as the students improve and become more skillful [13]. By applying the framework and moving strategically from one dimension to another, the educators can support students in improving their cognitive abilities and complex academic skills.

The authors also propose that the focus should be shifted from traditional lectures to real-world problems that are higher than the students' current knowledge and one of the prominent practical approaches in the field is Problem-Based Learning (PBL). In PBL, instead of passively receiving information, students identify what they need to learn and determine how to acquire that knowledge [14]. Teachers should be facilitating and providing sufficient support to help students improve within their ZPD (Zone of Proximal Development). The teachers ask probing questions and offer guidance when needed. Students are required to solve open-ended problems which can have several correct answers and encourage students to use their skills of problem-solving and critical thinking. Also develop practical skills are developed and help them to apply theoretical knowledge to practice. PBL encourages collaborative learning, where students work in small groups and share diverse perspectives and experiences. Collaboration allows learners to provide support to each other and facilitate learning via collective ZPD. A more knowledgeable peer can guide other and help them move forward together. This peer scaffolding represents a critical component of PBL.

Results and Discussion

Learning outcomes are the focus of the foreign language acquisition process and this is why they should be considered in detail. They were formulated for each stage of cognitive competence development, aligning with the purpose of each stage and based on the previously mentioned theories.

Stage 1 — Organize and Prepare is the initial stage of the cognitive competence development and is aimed at preparing the grounds for the following stages. The learning outcomes are the following:

1) Develop Foundational Knowledge — the students will acquire the knowledge base, i.e., key concepts, theories, and frameworks related to the subject matter, and will be able to use it in deeper learning;

2) Organize Information Efficiently — the students will learn to organize and categorize information and make it easier to recall it when applied in future tasks [15];

3) Develop Research Skills — along with developed research skills the students will be able to find credible sources, gather appropriate data and synthesize information from different sources [15];

4) Establish Clear Goals and Objectives — the students will focus on the process of their learning to guide and focus throughout their project, and that provides direction and motivation and helps learners to arrange and complete their tasks efficiently [15];

5) Manage Time and Plan — the learners develop their skills of time management and planning, and ensure they allocate sufficient time and manage the deadlines, control their learning process and stay organized [16];

6) Critically Evaluate the Resources — the students learn to distinguish between reliable and unreliable information, and use their critical thinking in evaluation of it [16];

7) These learning outcomes ensure that the students are well-prepared and organized for the deeper learning and are ready to move to the following stage.

Stage 2 — Analyze and Diagnose is the following stage that focuses on deeper cognitive engagement where the students analyze the information critically, identify the problems, and diagnose the underlying issues. The learning outcomes for this stage are the following:

1) Think Critically and Analytically — the students will be able to break the complex information into smaller pieces for detailed examination, they will also assess critically the quality and relevance of the information and will be able to distinguish between valid and flawed reasoning. They will also develop the skills of comparing different perspectives, theories, models, comparing and contrasting them [16].

2) Identify Problems — the students will identify the central issues and challenges within a certain context, distinguishing the underlying causes, articulate succinct problem statements, setting the grounds for further exploration and solution establishment. The students will also detect patterns, relationships and connections within the information under analysis, and will be ready for deeper understanding of the problem [16].

3) Diagnose Underlying Causes — the students will bring about hypotheses regarding the underlying causes of the problems identified, bringing about the relevant theories and frameworks, will critically examine the links between various factors, identifying cause-and-effect relationships and distinguish between surface-level characteristics of a problem and its deeper causes [17].

4) Apply Theoretical Knowledge — the students will learn to use theoretical frameworks and models in diagnosing problems and showing how theories inform practice, they will also incorporate insights from different disciplines to improve their analysis and diagnosis [16].

5) Interpret and Synthesize Data — the students will interpret qualitative and quantitative data, making informed decisions based on the facts available, they will also be able to identify incongruities in their understanding and identify areas for further research or analysis [17].

6) Make Decisions and Prioritize — the students will learn to prioritize issues based on their significance and impact and make informed decisions weighing pros and cons of different options [17].

7) Reflect Metacognitively — the students will evaluate their analytical process and identify areas for improvement, and adjust their analytical strategies to improve their cognitive competence in future tasks [16]

These learning outcomes help students develop critical analytical skills and provide them with the tools for addressing the complex issues efficiently and prepare them for the further stage.

Stage 3 — Design and Constitute is the third stage when the students progress from knowledge acquisition to application and creation of solutions. The learning outcomes of this stage include:

1) Apply Knowledge to Design Solutions — the students will apply foundational knowledge to come up with innovative and practical solutions to complicated issues or tasks, the aspect crucial to FLCC, requiring application of knowledge in real-world contexts [15].

2) Develop Critical and Creative Thinking — the ability to generate multiple approaches to solving problems or developing projects. This helps them evaluate different perspectives and come up with novel solutions [16].

3) Synthesize and Integrate Information — the students will synthesize the information from different sources and integrate ideas and concepts into a cohesive design or plan. This helps them create meaningful and interconnected ideas, and this is a core aspect of FL cognitive competence [16].

4) Develop Prototypes of Preliminary Models — the students will design the prototypes representing their ideas, considering testing, improvement, and further development and leads to deeper understanding and refining of concepts [17].

5) Collaborate and Coordinate with Peers — the students will collaborate with peers effectively and coordinate roles and responsibilities in teams in the design process, thus they benefit from diverse viewpoints and enhance their problem-solving skills [3].

6) Evaluate Feasibility and Constraints — the students will assess critically feasibility of their solution designs, taking into account such constraints as time, resources and context, thinking strategically and realistically [16].

7) Refine and Improve Design Iteratively — the students will engage in an iterative process of refining and improving their solution designs based on feedback and evaluation leading to more effective and thoughtful outcomes [15].

These learning outcomes for the Design and Constitute stage emphasize the usage of critical and creative thinking, collaboration and iterative refinements and prepare the students for the ultimate stage of the cognitive competence development.

Stage 4 — Produce and Adjust is the final stage where the students put their designs into practice and assess the effectiveness of their projects. The learning outcomes include:

1) Implement and Apply Designs in Real-World Contexts — the students will transfer their designs or models into actual products, solutions or performances, applying their knowledge to real-world contexts developing deeper understanding and enhancing skills [15].

2) Adapt and Modify Based on Feedback — the students will learn to critically assess their work and modify their work based on feedback and unforeseen challenges, thus enhancing quality and effectiveness of the final product.

3) Enhance Problem-Solving Skills through Iteration — the students will refine their word to address the issues that arise during production, applying the concept of "reflection-in-action" [17].

4) Develop Technical Proficiency and Precision — the students will enhance their technical skills and precision in executing tasks and make sure that their final product meets professional standards [17].

5) Demonstrate Flexibility and Resilience — the students will enhance their skills of flexibility and resilience adapting to the changing circumstances and overcome obstacles during production process [17].

6) Evaluate the Impact of the Output — the students will assess the effectiveness of the resulting output and consider how well it addresses the intended goals and audience needs [16].

7) Engage in Reflective Practice to Inform Future Work — the students will reflect on their production process and outcomes, identifying areas for improvements and applying these to their future projects [17].

These learning outcomes focus on production of high-quality outputs adaptable and reflective throughout the process, developing students' technical and problem-solving skills.

T a b l e

Model of Foreign Language Cognitive Competence Development

<table>
<tr><td colspan="4">Component 1: Motivational</td></tr>
<tr><td>Requirement of the state program of the RK Ministry of Education 2020–2025</td><td colspan="2">Requirement of the society for the specialists able to apply cognitive competence in FLL and FLT effectively</td><td>Necessity of the identification of cognitive competence as a separate competence and identification of its components, the stages of its development, and the ways of its assessment</td></tr>
<tr><td colspan="4">The aim: the development of cognitive competence of pre-service foreign language educators</td></tr>
<tr><td colspan="4">Component 2: Conceptual</td></tr>
<tr><td>Updated Bloom's Taxonomy</td><td colspan="2">Neo-Vygotskian Approach</td><td>M. Byram's ICC model</td></tr>
<tr><td>J. Cummins' Quadrants</td><td colspan="2">S.S. Kunanbayeva's Competence-based approach</td><td>J.R. Savery's approach of Problem-based Learning</td></tr>
<tr><td colspan="4">Principles of continuity, individualization, differentiation, subjectivity, availability, flexibility, openness, dynamicity, diversity, parallelism and system-based, problem-solving approaches</td></tr>
<tr><td colspan="4">Component 3: Procedural</td></tr>
<tr><td colspan="2"><u>Stages of Cognitive Competence Development</u>
1. Prepare & Organize
2. Analyze & Diagnose
3. Design & Constitute
4. Produce & Adjust</td><td colspan="2"><u>Components of Cognitive Competence</u>
1. Motivation and Awareness
2. Skills and Abilities
3. Learning and Performance
4. Reflection</td></tr>
</table>

Continuation of Table

<table>
<tr><td colspan="2"><u>Contents of the Course:</u>
Module 1 — Introduction — introducing the students to the process of FL cognitive development and explaining the details of performing the exercises;
Module 2 — Placement — identifying the current level of FLCC development of pre-service FL educators, compilation of the model of FL cognitive competence model, compilation of tailored program of FL cognitive competence development;
Module 3 — Training — training the students' FL cognitive skills;
Module 4 — Didactics — program of the ESPP course, compilation of various exercises according to the FL mastery levels.</td><td><u>Educational Conditions of Foreign Language Cognitive Competence Development:</u>
Compilation of the course of ESPP for FL cognitive competence development (an Elective Course, a Syllabus and a Teaching Aid on ESPP)
Application of the current educational and ICT technologies of language teaching, including problem-based learning, case study, role-plays, etc.
Introduction of the system of the exercises aimed at development of FL cognitive competence development and also taking into consideration the peculiarities of the educational program</td></tr>
<tr><td colspan="3">Organizational forms: face-to-face, students' individual work, students' individual work with the instructor</td></tr>
<tr><td colspan="3">Component 4: Reflexive-evaluative</td></tr>
<tr><td>Students' reflections on their perceived FL cognitive competence development:
surveys, interviews, journals</td><td>Instruments for measurement of FL cognitive competence development:
HOTs instruments, MAI, tests, identifying the levels of FL cognitive competence development (high, medium, low)</td><td>Assessment types:
lexical, grammatical, structural, conceptual</td></tr>
<tr><td colspan="3">Result — a student with a developed cognitive competence ready for new learning experiences and capable of real-life problem solving and possessing effective communication skills</td></tr>
</table>

Table represents the proposed model and the detailed characteristics of the Stages of Cognitive Competence Development are the following:

1. **Prepare & Organize** — The initial stage and the foundation for the implementation of the model of FLCC development. During this stage the focus should be on:

a) Establishing the framework of PBL:

- Define the overall goals and objectives in incorporating PBL;
- Align the PBL approach with the broader curriculum and learning outcomes;
- Determine the specific knowledge, skills, and tendencies targeted at PBL.

b) Designing PBL scenarios and problems:

- Identify the authentic, complex and complex problems future teachers might face in their upcoming work;
- Structure problems of PBL encouraging problem-solving, critical thinking, and applying theory into practice;
- Ensure the relevance, challenge and alignment of PBL problems to the cognitive competence development goals.

c) Preparing the learning environment:

- Organize the physical and virtual environments for learning to encourage collaborative and individual PBL activities;
- Equip the learning environments with the required resources and technological tools facilitating PBL;
- Establish guidelines for group work, communication and sharing of knowledge during PBL sessions.

d) Enhance faculty and teacher readiness:

- Provide opportunities for faculty and teachers for deeper understanding of PBL and its application in the process of cognitive competence development;
- Empower the faculty and teachers to facilitate PBL application, guide them and provide constructive feedback;
- Foster collaborative environment among faculty and teachers to share experiences and improve the PBL experiences.

2. **Analyze & Diagnose** — The second stage of FLCC development which focuses on the students' existing knowledge, skills and aptitudes as well as identification of their strengths, weaknesses and opportunities for growth. During this stage the following is emphasized:

a) Diagnostic Assessment:

- Administer the effective diagnostic assessment aimed at identification of the students' current levels of FLCC;
- Utilize a range of assessment methods, e.g., written tests, performance-based tasks and reflective exercises to get holistic understanding of the students' cognitive competence;
- Identify the prior knowledge, misconceptions and learning gaps about the FLCC of the students.

b) Analysis of Learning Needs:

- Analyze the diagnostic assessment data thoroughly to identify the areas requiring additional support and improvement in terms of cognitive competence;
- Categorize the students' learning needs on the basis of the identified strengths, weaknesses and areas for growth;
- Determine the appropriate level of scaffolding, guidance and personalized learning opportunities to address the number of students' needs.

c) Individualized Learning Plans:

- Develop individualized learning plans for each pre-service teacher, tailored to the students' specific learning needs and FLCC development goals;
- Incorporate targeted PBL experiences, resources and support strategies aligning with the areas for growth of the students;
- Set clear learning objectives, milestones and assessment criteria for monitoring student' progress in cognitive competence development.

d) Continuous Feedback and Adjustment:

- Implement continuous formative assessment and feedback mechanisms to monitor the students' progress and effectiveness of the interventions;
- Analyze the collected data regularly and refine the individualized learning plans, activities and provide personalized guidance and support to the students;
- Foster the culture of continuous improvement and adaptation based in the insights gained in the course of this stage.

3. **Design & Constitute** — the stage that focuses on the fostering the application and refinement of students' FL cognitive skills. The following is emphasized during this stage:

a) PBL Project Design:

- Design the authentic, complex and elaborate PBL projects that correspond the individualized learning plans and cognitive competence development goals;
- Constitute the PBL projects in a way that engages students' skills of critical analysis, problem-solving, and usage of theoretical knowledge in practice;
- Make sure that the PBL projects present realistic challenges and problems that the future teachers might encounter in the prospective career.

b) Collaborative Learning:

- Encourage formation of diverse teams among the students to work on PBL projects;
- Put forward the collaborative problem-solving, knowledge sharing, peer-to-peer learning within the teams;
- Aim at development of teamwork skills, interpersonal and communicative skills.

c) Scaffolding and Guidance:

- Engage in targeted scaffolding, support and mentoring for students;
- Helping to frame the problem, collect and analyze the relevant information, generate and assess solutions and present their findings effectively;
- Provide timely feedback, coaching, and room for reflection to assist students in refining their FLCC.

d) Knowledge Construction and Application:

- Assist students in the process of integration of theoretical knowledge, practice and problem-solving strategies;
- Promote critical analysis of the information, synthesis of their knowledge and generating new constructs and concepts;
- Provide room for application of the students' FLCC in in simulated or real-world teaching scenarios.

e) Formative Assessment and Iteration:

- Apply constant formative assessments to control students' progress in FLCC development;
- Analyze the data collected to identify areas for improvement, refine the PBL projects and offer tailored support to the students;
- Foster a culture of continuous learning, adaptation, and growth within the pre-service teacher education program.

4. **Produce & Adjust** — is the culminating stage in the development of FLCC. It focuses on students' ability to apply their cognitive skills and knowledge independently in authentic teaching contexts. It emphasizes the following:

a) Authentic Teaching Experiences:

- Provide students with the chances to use their FLCC in real-world contexts, such as student teaching internship, etc.;
- Make sure that the teaching experiences coincide with the FLCC development goals and PBL projects from the earlier stages;
- Encourage students to identify and solve complicated teaching challenges.

b) Demonstrate FLCC:

- Observe and assess pre-service teachers' ability to effectively apply their FL cognitive skills in teaching practice;
- Assess how the pre-service teachers can tailor their FLCC to various teaching contexts and students' needs;
- Document the students' development and improvements in the FLCC development process using different assessment methods, e.g., classroom observations, samples of students work, lesson plans.

c) Reflective Practice and Self-Assessment:

- Facilitate structured reflection opportunities for the future teachers to analyze critically their personal cognitive competence and teaching practices;
- Promote identification of their strengths, weaknesses and areas for further development in FLCC among the students;
- Navigate pre-service teachers in developing individual action plans for constant professional development and FLCC enhancement.

d) Feedback and Coaching:

- Provide clear constructive feedback on students' FLCC demonstrations in authentic teaching contexts;
- Provide the required coaching and mentoring to assist students in honing their FL cognitive skills and address all identified areas for growth;
- Encourage a collaborative environment where the students, faculty and mentors work together to improve FLCC development.

e) Summative Assessment and Certification:

- Conduct a comprehensive summative assessment to find out pre-service teachers' overall FLCC and readiness for teaching;
- Align the summative assessment with the FLCC development goals and the Educational Program's standards for teacher certification;
- Provide pre-service teachers with a recognized certification or credential validating their FLCC and readiness for teaching.

The proposed model takes into account various learners' needs and prepares students for the effective application of their FL cognitive skills and offers a pathway for successful academic and personal experiences.

Conclusion

The model of foreign language cognitive competence development illustrates how various cognitive processes and factors interact to foster language learning and skill acquisition. It demonstrates the FL cognitive development as an active process shaped by continuous apprehension, reflection and adaptation and highlights the role of active engagement, scaffolding, and reflective practices in the process of improving deeper understanding and continuous cognitive growth.

Further implications of the model proposed can focus on professional development and workplace training: in designing training programs for pre-service teachers that enhance their FL cognitive competence

through simulation exercises, real-world problem-solving tasks, and collaborative learning. It can also foster cognitive flexibility and decision-making abilities, enhancing learners' leadership skills, crisis management and strategic planning. Moreover, the model can be applied in policy and educational reform, as educational assessment practices can be reformed in accordance with holistic approach including critical thinking and creativity, providing a more profound picture of student learning and development. It can also inform research-based approaches, where the students engage in research process and develop their skills related to inquiry, analytical thinking and synthesis of information that are crucial for academic and professional success.

The proposed Model of Foreign Language Cognitive Competence Development has a wide range of application as it emphasizes the importance of tailoring approaches to various students' needs and prepares individuals for the complex cognitive demands of the modern society.

References

1 Schneider W. Memory Development: From Theory to Practice. / W. Schneider, R. M. Shiffirin. — Cambridge University Press, 2020.

2 Anderson J.R. Cognitive Psychology and Its Implications (9th ed.) [Electronic resource] / J.R. Andreson // Worth Publishers. — 2021. — Access mode: https://www.google.kz/books/edition/The_Routledge_Handbook_of_Second_Languag/dcMOEQAAQBAJ?hl=ru&gbpv=1&dq=Anderson+J.+R.+Cognitive+Psychology+and+Its+Implications+(9th+ed.).+//+Worth+Publishers.+2021.&pg=PA171&printsec=frontcover.

3 Sternberg R.J. Cognitive Psychology (7th ed.) [Electronic resource] / R.J. Sternberg. — Cengage Learning, 2019. — Access mode: https://aishwaryajaiswal.com/wp-content/uploads/2022/01/Cognitive-Psychology-Sternberge.pdf.

4 Кунанбаева С.С. Компетентностное моделирование профессионального иноязычного образования [Электронный ресурс] / С.С. Кунанбаева. — Almaty, 2014. — 208 р. — Режим доступа: https://pps.kaznu.kz/en/Main/FileShow/2252082/88/348/18159/%20 %20 %20 %20 %20 %D0 %91 %D0 %B5 %D0 %BA%D0 %BE%D0 %B2 %D0 %B0 %20 %D0 %96 %D0 %B0 %D0 %BD%D1 %81 %D0 %B0 %D1 %8F%20 %D0 %9A%D0 %B0 %D0 %BB%D0 %B4 %D1 %8B%D0 %B1 %D0 %B5 %D0 %BA%D0 %BE%D0 %B2 %D0 %BD%D0 %B0/2023/2.

5 Vygotsky L.S. Mind in Society: The Development of Higher Psychological Processes. / L.S. Vygotsky. — Harvard University Press, 1978. https://doi.org/10.2307/j.ctvjf9vz4.

6 Rogoff B. The cultural nature of human development. [Electronic resource] / B. Rogoff. — Oxford University Press, 2003. — Access mode: https://edisciplinas.usp.br/pluginfile.php/5062545/mod_resource/content/1/Rogoff-The%20Cultural%20Nature%20of%20Human%20Development-Oxford%20University%20Press%2C%20USA%20 %282003 %29.pdf.

7 Byram M. Teaching and Assessing Intercultural Communicative Competence [Electronic resource] / M. Byram. — Multilingual Matters, 1997. — Access mode: https://spada.uns.ac.id/pluginfile.php/253332/mod_resource/content/1/ICC%20Byram.pdf.

8 Liddicoat A.J. Intercultural language teaching and learning. / A.J. Liddicoat, A. Scarino. — Wiley-Blackwell, 2013. DOI:10.1002/9781118482070.

9 Byram M. From Foreign Language Education to Education for Intercultural Citizenship: Essays and Reflections. / M. Byram. — Multilingual Matters, 2008. — Access mode: https://doi.org/10.21832/9781847690807.

10 Deardorff D.K. Intercultural competence: Mapping the future research agenda [Editorial]. / D.K. Deardorff // International Journal of Intercultural Relations. — 2015. — Vol. 48. — P. 3–5. doi:10.1016/j.ijintrel.2015.03.002.

11 Byram M. Making a Difference: Language Teaching for Intercultural and International Dialogue / M. Byram, M. Wagner // Foreign Language Annals. — 2018. doi:10.1111/flan.12319.

12 Cummins J. BICS and CALP: Empirical and Theoretical Status of the Distinction. / J. Cummins; In B. Street & N.H. Hornberger (Eds.) // Encyclopedia of Language and Education. — Springer Science+Business Media LLC, 2008. — Vol. 2. — № 2.— P. 71–83. DOI: 10.1007/978-0-387-30424-3_36.

13 Cummins J. Academic Language Learning, Transformative Pedagogy, and Information Technology: Towards a Critical Balance / J. Cummins // TESOL Quarterly. — 2000. — Vol. 34. — № 3. — P. 537–548. doi:10.2307/3587742.

14 Savery J.R. Overview of problem-based learning: Definitions and distinctions / J.R. Savery // Interdisciplinary Journal of Problem-Based Learning, — 2006. — Vol. 1. — № 1. — P. 9–20. https://doi.org/10.7771/1541-5015.1002.

15 Anderson L.W. *A* Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives [Electronic resource] / L.W. Anderson, D.R. Krathwohl — Addison-Wesley Longman, Inc., 2021. — Access mode: https://quincycollege.edu/wp-content/uploads/Anderson -and-Krathwohl_Revised-Blooms-Taxonomy.pdf.

16 Kirschner P. A. How Learning Happens: Seminal Works in Educational Psychology and What They Mean in Practice / P.A. Kirschner, J. Sweller, R.E. Clark. — Routledge, 2021. DOI:10.4324/9780429061523.

17 Schön D. A. Reflective Practice: Reimagining Reflection-in-Action for the Digital Age. / D. A. Schön, W.J. Orlikowski. — Routledge, 2021. http://dx.doi.org/10.25819/ubsi/2798.

М.А. Аширимбетова, Д.Б. Шаяхметова

Шет тілдік когнитивтік құзыреттілікті дамыту моделі

Шет тілдік когнитивтік құзыреттілікті дамыту мәселесі соңғы онжылдықтарда көптеген зерттеулердің нысаны болды. Мәселелерді шешу, сыни ойлау, пайымдау және есте сақтау қабілеттерін қамтитын шет тілдік когнитивтік құзыреттілік қазіргі өмірдің түрлі салаларында тиімді жұмыс істеу үшін өте маңызды. Когнитивтік даму туралы көптеген зерттеулерге қарамастан, когнитивтік құзыреттіліктің көп өлшемдерін қамтитын, жеке және контекстік факторлар арасындағы өзара байланысты қамтитын жан-жақты модель қажет. Қазақстандық ғылымда бұл көбінесе мәдениетаралық коммуникативтік құзыреттіліктің (МКҚ) құрамдас бөлігі ретінде қарастырылады. Мақала авторлары оған ерекше назар аудару керек деп санайды және шет тілдік когнитивтік құзыреттілікті дамыту моделіне және оның әр кезеңінің оқу нәтижелеріне қысқаша шолу жасаған. Ұсынылған модельдің негізгі компоненттеріне когнитивтік құзыреттілікті дамытудың кезеңдері мен білім беру шарттары және шет тілдік когнитивтік құзыреттілікті өлшеу құралдары кіреді. Болашақ зерттеулер модельді жетілдіруге және кеңейтуге, сондай-ақ оны білім беру теориясы мен практикасында сынақтан өткізуге және қолдануға бағытталуы мүмкін.

Кілт сөздер: шет тілдік когнитивтік құзыреттілікті дамыту, модель, компоненттер, оқу нәтижелері, білім беру теориясы және практикасы.

М.А. Аширимбетова, Д.Б. Шаяхметова

Модель развития иноязычной когнитивной компетенции

Вопрос развития иноязычной когнитивной компетенции является предметом многочисленных исследований на протяжении последних десятилетий. Когнитивная компетенция, включающая такие навыки, как решение проблем, критическое мышление, рассуждение и запоминание, имеет большое значение для эффективного функционирования человека в различных сферах современной жизни. Несмотря на обширные исследования в области когнитивного развития, сохраняется необходимость создания комплексной модели, учитывающей многочисленные аспекты иноязычной когнитивной компетенции и взаимодействие между индивидуальными и контекстуальными факторами. В казахстанской науке она в основном рассматривается как субкомпетенция межкультурной коммуникативной компетенции (МКК). Авторы данной статьи предлагают уделить ей особое внимание и представляют краткий обзор модели развития иноязычной когнитивной компетенции и результатов обучения для каждого из ее этапов. Ключевыми компонентами предлагаемой модели являются этапы и образовательные условия развития иноязычной когнитивной компетенции, а также инструменты для измерения уровня ее развития. Дальнейшие исследования могут быть направлены на уточнении и развитии модели, а также на ее апробации и применении в образовательной теории и практике.

Ключевые слова: развитие иноязычной когнитивной компетенции, модель, компоненты, результаты обучения, теория и практика образования.

References

1 Schneider, W. & Shiffrin, R. M. (2020). *Memory Development: From Theory to Practice.* Cambridge University Press.

2 Anderson, J.R. (2021). Cognitive Psychology and Its Implications. (9th ed.). Worth Publishers. *google.kz.* Retrieved from https://www.google.kz/books/edition/The_Routledge_Handbook_of_Second_Languag/dcMOEQAAQBAJ?hl=ru&gbpv=1&dq=Anderson+J.+R.+Cognitive+Psychology+and+Its+Implications+(9th+ed.).+//+Worth+Publishers.+2021.&pg=PA171&printsec=frontcover.

3 Sternberg, R.J. & Sternberg, K. (2019). Cognitive Psychology. (7th ed.) Cengage Learning. *aishwaryajaiswal.com.* Retrieved from https://aishwaryajaiswal.com/wp-content/uploads/2022/01/Cognitive-Psychology-Sternberge.pdf.

4 Kunanbayeva, S.S. (2014). Kompetentnostnoie Modelirovanie Professionalnogo Inoiazychnogo Obrazovaniia. Almaty. *pps.kaznu.kz.* Retrieved from https://pps.kaznu.kz/en/Main/FileShow/2252082/88/348/18159/%20 %20 %20 %20 %20 %D0 %91 %D0 %B5 %D0 %BA%D0 %BE%D0 %B2 %D0 %B0 %20 %D0 %96 %D0 %B0 %D0 %BD%D1 %81 %D0 %B0 %D1 %8F%20 %D0 %9A%D0 %B0 %D0 %BB%D0 %B4 %D1 %8B%D0 %B1 %D0 %B5 %D0 %BA%D0 %BE%D0 %B2 %D0 %BD%D0 %B0/2023/2 [in Russian].

5 Vygotsky, L.S. (1978). Mind in Society: The Development of Higher Psychological Processes. Harvard University Press. https://doi.org/10.2307/j.ctvjf9vz4.

6 Rogoff, B. (2003) The cultural nature of human development. Oxford University Press. *edisciplinas.usp.br.* Retrieved from https://edisciplinas.usp.br/pluginfile.php/5062545/mod_resource/content/1/Rogoff-

The%20Cultural%20Nature%20of%20Human%20Development-Oxford%20University%20Press%2C%20USA%20 %282003 %29.pdf.

7 Byram, M. (1997) Teaching and Assessing Intercultural Communicative Competence. Multilingual Matters. *spada.uns.ac.id.* Retrieved from https://spada.uns.ac.id/pluginfile.php/253332/mod_resource/content/1/ICC%20Byram.pdf.

8 Liddicoat, A.J., & Scarino, A. (2013) Intercultural language teaching and learning. Wiley-Blackwell. DOI:10.1002/9781118482070.

9 Byram, M. (2008). From Foreign Language Education to Education for Intercultural Citizenship: Essays and Reflections. Multilingual Matters. https://doi.org/10.21832/9781847690807.

10 Deardorff, D.K. (2015). Intercultural competence: Mapping the future research agenda [Editorial]. *International Journal of Intercultural Relations, 48,* 3–5. doi:10.1016/j.ijintrel.2015.03.002.

11 Byram, M., & Wagner, M. (2018). Making a Difference: Language Teaching for Intercultural and International Dialogue. *Foreign Language Annals.* doi:10.1111/flan.12319.

12 Cummins, J. (2008). BICS and CALP: Empirical and Theoretical Status of the Distinction. In B. Street & N.H. Hornberger (Eds.). *Encyclopedia of Language and Education, 2,* 2, 71–83. DOI: 10.1007/978-0-387-30424-3_36.

13 Cummins, J. (2000). Academic Language Learning, Transformative Pedagogy, and Information Technology: Towards a Critical Balance. *TESOL Quarterly, 34*, 3, 537–548. doi:10.2307/3587742.

14 Savery, J.R. (2006). Overview of problem-based learning: Definitions and distinctions. *Interdisciplinary Journal of Problem-Based Learning, 1*, 1, 9–20. https://doi.org/10.7771/1541-5015.1002.

15 Anderson, L.W. & Krathwohl, D.R. (2021). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives.* Addison-Wesley Longman, Inc. *quincycollege.edu.* Retrieved from https://quincycollege.edu/wp-content/uploads/Anderson-and-Krathwohl_Revised-Blooms-Taxonomy.pdf.

16 Kirschner, P.A., Sweller, J., & Clark, R.E. (2021). *How Learning Happens: Seminal Works in Educational Psychology and What They Mean in Practice*. Routledge. DOI:10.4324/9780429061523.

17 Schön, D.A., & Orlikowski, W.J. (2021). *Reflective Practice: Reimagining Reflection-in-Action for the Digital Age.* Routledge. http://dx.doi.org/10.25819/ubsi/2798.

Information about the authors

Ashirimbetova, M.A. — (corresponding person) MA, Senior Lecturer, a PhD candidate, Suleyman Demirel University, Almaty, Kazakhstan, email: *madina.ashirimbetova@sdu.edu.kz;*

Shayakhmetova, D.B. — Candidate of Pedagogical Sciences, Associate Professor, Abai Kazakh National Pedagogical University, Almaty, Kazakhstan, email: *dana.shayakhmet@mail.ru.*