

**DEVELOPMENT OF COGNITIVE-OPERATIONAL THINKING IN  
STUDENTS OF HIGHER MEDICAL EDUCATION INSTITUTIONS BY  
MEANS OF COMMUNICATIVE SKILLS**

*Olimova Dano Shakirovna*

*Head of the "Languages" department of  
TTA Urganch branch, Associate Professor*

*Kurbaniyazova Oltinjon Maxmudovna*

*1st year graduate student of TTA Urganch branch*

**ABSTRACT**

The research examines the specifics of cognitive linguistics regarding developing communicative competence and forming students' linguistic personalities. Attention is paid to the essence of cognitive linguistics, the history of the emergence of this direction, and the current state of research. The article analyzes the ways, methods, and forms of cognitive linguistics application in the educational process to form the student's linguistic personality and develop communicative competence. The structure of the concept is presented for the simplified perception of a specific phenomenon by a student of a philological specialty. The study aims to reveal the role of cognitive linguistics in developing communicative competence and forming a student's linguistic personality. The object of research is cognitive linguistics as a linguistic direction. Research methods. Such research methods as description, analysis and synthesis, generalization, and linguistic analysis were used in the work. The work examines the issue of cognitive linguistics in terms of the development of communicative competence and the formation of students' linguistic personalities. The essence of the concept of "cognitive linguistics," its direction, principles, and principles are revealed. The history of the emergence of cognitive linguistics as a linguistic direction and the current state of research are described. Cognitive linguistics' impact on forming a student's communicative competence is described. The student's types of thinking are analyzed, in particular, abstract, professional, critical, fast, and systematic. The case method is a key cognitive linguistics method used during educational activities. The proof of the values of the method is implemented, and the stages of the case method are demonstrated with the help of a graphic image. The article provides ways of forming the student's communicative competence through cognitive linguistics. The advantages and disadvantages of each method are described. The construction of the concept is carried out, which

contributes to the student's faster perception of the topic and the types of concepts given.

Keywords: cognitive linguistics, communicative competence, thinking, language personality, student, phenomenon.

## INTRODUCTION

Like many other people based professions, communications skills are essential for medical practice. It is a backbone over which lot of areas of patient care rests such as, first contact patient interviews, probing for associated and additional problems, counseling the patient, explaining treatment options, its complications and advising follow-up. It is also necessary for explaining risks to the patient, counseling in case of bereavement or mishap, providing information about a surgical procedure its complications, taking an informed consent, and lot more other areas of patient care. Traditional medical teaching imparts students with theoretical and practical knowledge of diseases processes and gives them education about diagnostic and treatment modalities, but does not address communication skills which are most essential in dealing with patients.[1,2] Good communications and counseling techniques can be taught and practiced to increase clinical competence.[3] Physician's interpersonal and communication skills have a significant impact on patient care and correlate with improved healthcare outcomes.[4]

Better communication between doctor and patient builds confidence, improves compliance, and reduces mistakes and mishaps, thereby reducing malpractice suits. If knowledge of medicine, surgical skill, and clinical acumen is the craft of medical practice, the communications skills are the fine arts! Professionalism, which is an integral part of good medical practice, also demands effective communication skills along with knowledge, skill, competence and ethics.[5,6,7] Association of American Medical Colleges Cincinnati, expert panel identified seven components considered to be fundamental to all encounters between clinician and patient: The key components are – build the relationship, open the discussion, gather information, understand the patient's perspective, share information, reach agreement on problems and plans, provide closure. These can be taught to the students during the communication training program using the framework of Calgary–Cambridge patient interview model.[5,7]

There are certain misconceptions about teaching communications to medical students, like communication skills are not considered teachable, or the skills acquired during training period tends to decline over time.[2] Students and teachers feel that these would be learned and improved with experience. Improving communication skills requires faculty and students to possess self-awareness,

interpersonal sensitivity, and willingness to be self-reflective.[3] In spite of the aforesaid hurdles, it is a foregone conclusion that the practice of medicine requires more than just communication skills, but good communications is necessary for effective practice. The communication skills training can be incorporated in undergraduate training.

## MATERIALS AND METHODS

The recommendations for the undergraduate medical communication curriculum were developed through an iterative consultation process with 8 teachers, members of medical faculties, and the education coordinators representing the five Polish medical schools (Bydgoszcz, Kraków, Olsztyn, Poznań, Warszawa), all of whom are members of the Polish Society of Medical Communication. For the study, a narrative literature review was performed using Web of Science, Google Scholar and PubMed/MEDLINE databases. The review followed previous guidelines on the development of a narrative review outlined by Dixon-Woods et al. [36] and Peters et al. [37]. The search strategy included Medical Subject Headings terms and keywords: “communication and (“medical education” or “medicine”) and (“curriculum” or “undergraduate”)”. Reference lists of all the selected articles, previous reviews, and meta-analyses were hand-searched for any additional articles. The narrative discussion was aligned with individual articles and interpretations of relevant articles by organizing it into sections: (1) definition, (2) education content, (3) learning outcomes, (4) the recommended teaching methods.

The inclusion criteria were full text articles published in English and Polish between January 2001 up to December 2022 concerning communication curriculum for undergraduate medical education. One author selected papers which fulfilled the inclusion criteria and extracted data for the outcomes using a standardized data extraction form. Papers not describing learning outcomes concerning communication skills were excluded. Another author rechecked the extracted data. Out of 6381 papers chosen by the search strategy including Medical Subject Headings terms and keywords, 168 were included after reading the titles. Then, a total of 73 were included after reading the abstract. Eventually, after reading the full texts 28 articles were included to the final analyses based on the quality of the studies. The review process was used to list learning outcomes concerning communication skills [38]. The authors identified common communication skill competencies by comparing the Calgary Cambridge Observation Guides [39], Kalamazoo Consensus Statement [40], the Four Habits Model [41], The SEGUE Framework [42], and previous communication skills lists that the authors have used. The new Regulation of the Minister of Science and Higher Education on educational

standards for undergraduate medical education [62] also underwent a content analysis in order to select learning outcomes including communications skills. Additionally, the authors discussed present day challenges posed by the COVID-19 pandemic. To develop the communication curriculum recommendations for undergraduate medical education in Poland and to achieve a consensus, a systematic academic approach and the Delphi technique were used. The process of the curriculum development was split in 6 phases within the process: (1) development of a list of learning outcomes concerning communication skills on the basis of literature, existing consensus statements, frameworks and guidelines, (2) in person expert meeting to discuss: (a) general communication competencies, (b) education content based on various aspects of communication, (c) educational content concerning medical consultations, (d) the recommended teaching methods, (3) development of a first draft of recommendations, (4) online meetings and electronic discussion process to revise the first draft; (5) second Delphi round to test the revised draft and make suggestions for improvement (6) a final Delphi round for the recommendations.

The objectives and learning outcomes needed to be most comprehensive in inclusion and detailed. They were defined according to Bloom's taxonomy using a skills-based approach. Ambiguous aspects among experts were reworded and new aspects incorporated.

## CONCLUSION

Based on research on cognitive development among students of English as a second language in higher education, this chapter examines cognitive development's theoretical grounds and criticisms, as well as its value and contribution. Additionally, the chapter illustrates how pedagogical approaches are guided by the dimensions of student learning. The outcomes of the study highlight the study process as a chance to develop new skills in students through cognitive engagement. Attending English as a second language class evokes thoughts of learning and achievement in students. Examination of given situations revealed that study engagements may lead to feelings of tension, apprehension, or fear about performing up to the expectations set for learners by teachers and curriculum. Therefore, learners of English as a second language feel under pressure from anxiety and stress. The acquisition and demonstration of knowledge cannot simply sum up what students learn in class. Memory, attention, cognitive control, motivation, and emotions all play a role in academic performance. Providing students with close supervision, assistance, and interaction opportunities enhanced the performance outcomes of the

experimental group. Pedagogical interventions integrated with cognitive development perspectives applied to the experimental group resulted in improvements in learning and a reduction of anxiety and stress compared to the control group. The following categories of activities and strategies are presented based on assessments (e.g., formative and summative) aimed at developing cognitive control functions in the language classroom (ages 18–25) or combinations of those activities.

## REFERENCES

1. Miller EK, Cohen JD. An integrative theory of prefrontal cortex function. *Annual review of neuroscience*. 2001;24(1):167-202
2. Tiego J, Testa R, Bellgrove MA, Pantelis C, Whittle S. A hierarchical model of inhibitory control. *Frontiers in Psychology*. 2018;9:1339
3. Yerys BE, Bertollo JR, Kenworthy L, Dawson G, Marco EJ, Schultz RT, et al. Brief report: Pilot study of a novel interactive digital treatment to improve cognitive control in children with autism spectrum disorder and co-occurring ADHD symptoms. *Journal of Autism and Developmental Disorders*. 2019;49(4):1727-1737
4. Best JR, Miller PH. A developmental perspective on executive function. *Child development*. 2010;81(6):1641-1660
5. Morales J, Calvo A, Bialystok E. Working memory development in monolingual and bilingual children. *Journal of Experimental Child Psychology*. 2013;114(2):187-202
6. Phillips CML, Gulley AP, Pearson YE, Smith LE, Eyler J, Noble S, et al. Solving Problems of Mathematics Accessibility with Process-driven Math: Methods and Implications. *ASCE Annual Conference & Exposition Proceedings*; 2018
7. Miller PH. Piaget's theory: Past, present, and future. In: Goswami U, editor. *The Wiley-Blackwell handbook of childhood cognitive development*. Wiley Blackwell; 2011. pp. 649-672
8. Vygotsky LS, Cole M. *Mind in Society: Development of Higher Psychological Processes*. Harvard University Press; 1978
9. Taylor K. Diverse and critical perspectives on cognitive development theory. *New Directions for Student Services*. 2016;154:29-41
10. Kellermann TS, Bonilha L, Lin JJ, Hermann BP. Mapping the landscape of cognitive development in children with epilepsy. *Cortex*. 2015;66:1-8. Language Learners' English Development. *Child Development*
11. Gascon M, Triguero-Mas M, Martínez D, Dadvand P, Forns J, Plasència A, et al. Mental health benefits of long-term exposure to residential green and blue spaces:

A systematic review. *International Journal of Environmental Research and Public Health*. 2015;12(4):4354-4379. DOI: 10.1111/cdev.13558

12. Barac R, Bialystok E, Castro DC, Sanchez M. The cognitive development of young dual language Learners: A critical review. *Early Child Research Quarterly*. 2014;29(4):699-714