BRAIN. Broad Research in Artificial Intelligence and Neuroscience
ISSN: 2068-0473 | e-ISSN: 2067-3957
Covered in: Web of Science (WOS); PubMed.gov; IndexCopernicus; The Linguist List; Google Academic; Ulrichs; getCITED; Genamics JournalSeek; J-Gate; SHERPA/RoMEO; Dayang Journal System; Public Knowledge Project; BIUM; NewJour; ArticleReach Direct; Link+; CSB; CiteSeerX; Socolar; KVK; WorldCat; CrossRef; Ideas RePeC; Econpapers; Socionet.

2023, Volume 14, Issue 3, pages: 107–121 | https://doi.org/10.18662/brain/14.3/464

Neuropsychological Considerations of Communication Competence in Prospective Educators

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Abstract: The article presents a theoretical analysis of the psychological and psycholinguistic literature on the research problem, substantiates scientific provisions regarding the understanding of communicative competence by future teachers as an integral quality of the individual, which synthesizes the general culture of communication and its specific manifestations in further pedagogical activity. The results of the diagnosis of the peculiarities of the understanding of the concept of "communicative competence" by future teachers of preschool education institutions are described.
The purpose of the article is a psycholinguistic analysis of the understanding of the concept of "communicative competence" by future teachers of preschool education institutions by using this concept as a stimulus in a chain associative experiment.
The research uses theoretical methods (analysis, synthesis, generalization, theoretical modeling) and diagnostic methods (observation, survey, questionnaire, free associative experiment, which serves as a source of accumulation of empirical data regarding students' understanding of the concept of communicative competence at various levels of professional training).
The results not exhaust all possibilities of the research, however, the use of the concept of "communicative competence of the future educator" as a stimulus phrase in a chain associative experiment was determined, different reactions of the associative were recorded in students majoring in preschool education of different courses. It was established that for senior year students, the leading lever in understanding the concept of "communicative competence" is the motivational-value and reflexive-perceptive aspects, and for second-year students — the conceptual component. Such differences in the understanding of concepts are explained by the different amount of previous experience acquired by students in the process of professional training.

Keywords: *Communicative Competence, Chain Associative Experiment, Concept-Stimuli, Word-Associations, Associative Stimulus Field, Nuclear Reactions of the Associative Stimulus Field, Professional Culture*

How to cite: Halchenko, V., Levchenko, V., Shcherbakova, V., Medianova, O., Kaliuzhna, Y., Poplavska, Y. (2023). Neuropsychological considerations of communication competence in prospective educators. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 14*(3), 107–121. https://doi.org/10.18662/brain/14.3/464

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Introduction

In the conditions of the diversification of the information space and multifunctional interactions, against the background of the emergence of increasingly complex professional tasks, modern psychological research considers communicative competence as the basic competence of an individual, since it ensures the success of any activity. Under such circumstances, the need for specialists in pedagogical specialties with a high level of development of communicative competence is extremely urgent. First of all, this applies to professions in the humanitarian direction, which includes students of the "Preschool Education" specialty - future teachers of preschool education institutions.

The problem of developing students' communicative competence requires radically new approaches in educational practice. The processes of European integration require the modernization of views and requirements regarding the formation of the so-called professional "knowledge, abilities and skills" of future specialists. That is why the education system now includes a competency-based approach to the training of teaching staff, which involves the formation of general and professional competencies of students. Such an important step on the path of reforming higher education in Ukraine will direct the attention of modern teachers to the development of significant professional qualities and the best personal qualities in students in the process of professional training.

The formation of competence of students involves the implementation of approaches in determining priority principles: conducting a theoretical analysis of the problem of formation of communicative competence of future teachers of preschool education institutions as an indicator of the instrumental component of their professional culture; experimental study of students' understanding of the concept of "communicative competence" of different years of study; establishment by means of psycholinguistic analysis of the dynamics of students' understanding of the concept of "communicative competence" of different years of study.

Modern researchers of this problem, Avdymyrets (2020), Halytska (2015), Herasina (2017), Kalmykova (2008), Khametova (2018), etc.) consider the content of communicative competence on the basis of competence approach

In particular, from the point of view of Avdymyrets (2020), competence should be determined on the basis of the learning results acquired by the individual, communication experience and practical

interaction with other people. Such assets have, on the one hand, a specialized (or professional) character, and on the other, a general (ethical, cultural, axiological, communicative-dialogical, reflective, etc.) character. According to the author, "competence appears as a complex concept that includes knowledge and skills regarding personal self-reflection, as well as interaction at the interpersonal, group (team) and general societal levels. Competence is achieved through both formal and non-formal education. Under such conditions, self-education becomes important" Avdymyrets (2020).

In turn, Halytska (2015) understands the concept of "communicative competence of students of higher education institutions" as a special quality of an integrative personality, which integrates specific manifestations of this kind of culture directly in professional activity into the general culture of communication. The scientist singles out the following components of students' communicative competence:

– foreign language communicative competence (knowledge of grammar, vocabulary, phonology, semantics, as well as the ability to use them in the speech process carried out in the context of the dialogue of cultures);

– professional competence (as a task for the student to master professional terminology);

– strategic competence (as the ability to apply verbal and non-verbal communication strategies in the process of information exchange, thereby compensating for misunderstanding or ignorance of the language code);

– social competence (as the ability to interact in social communication situations).

We consider the research of Khametova (2018) valuable for our experiment, which identifies the following components of communicative competence that correspond to the socio-psychological portrait of a future teacher, namely:

– mastery of grammatical, phonetic, lexical, constructs (this applies to the native language and one (or several) foreign languages according to professional direction;

– mastery of the basics of public speaking;

– communication culture, which is based on knowledge of national characteristics of communication in the chosen profession;

– knowledge of means of non-verbal communication;

– the ability to create and read a psychological portrait of the interlocutor;

– understanding the psychological characteristics and moral component of the interlocutor;

– developed empathy to understand people's interests and needs;

– the ability to interact in a team, prepare and conduct constructive negotiations;

– the ability to determine the existing level of conflict in the team, predict conflict situations and effectively resolve them;

– the ability to be a leader;

– the ability to reveal the potential of everyone in the team;

– the ability to follow the rules of etiquette;

– be able to listen;

– the ability to defend one's own point of view, etc. Khametova (2018).

The researcher emphasizes that communicative competence involves the exchange of information, resulting in interactive and perceptive contacts Khametova (2018).

According to Kalmykova (2008), the basis of communicative competence lies in the teacher's communicative activity, which is of great applied importance, especially for linguistic methods, because it gives an idea of the distinctive properties of their course, specific features of their psychophysiological mechanisms, and therefore, allows organizing the process training, targeting it either to the development of spontaneous, unconscious, affective, unintentional, involuntary speech, or to the development of purposeful intentional, conscious, arbitrary, controlled speech - depending on the didactic goal and the age characteristics of children's language acquisition and mastery, Kalmykova (2008).

The purpose of the article is to present a psycholinguistic analysis of the understanding of future preschool teachers of the concept of "communicative competence" by using this concept as a stimulus in a chain associative experiment.

Theoretical analysis of the concept of "communicative competence"

His professional culture plays an important role in the professional development of a future teacher. The professional culture of the future educator is the presence of the teacher's spiritual wealth (high moral values), a pronounced creative individuality, which is ready and capable of innovations and transformations; special personal qualities (humanism, unconditional love for children, oneself and other people, pedagogical optimism, tolerance, tact, etc.); knowledge, abilities and skills of pedagogical activity in the system of preschool education; external attractiveness and aesthetics, Halchenko & Repetii (2019).

Scientists have identified the following components of the professional culture of future preschool teachers:

1. Spiritual-creative component (high level of spirituality and creativity, ability for self-regulation and self-development, life strategies, goals, plans, projects formed in a certain way, life-creative skills as leading characteristics of the student's creative individuality)

1. Cognitive component (active attitude to educational and cognitive activities, efforts to penetrate deeper into the essence of the profession of a preschool teacher)

2. Motivational and value (personal attitude of the future specialist to the chosen profession, determination of its place in the general structure of professions, determination of the leading motivation in the work of the educator – a humane attitude towards the child, faith in his strengths and capabilities)

3. Reflective and perceptive (ability to reflect, self-knowledge, knowledge and understanding of other people, high level of empathy)

4. Instrumental (high level of general culture, life experience, availability of knowledge acquired in the process of studying at higher education institutions, professional skills and abilities, communicative competence) Halchenko & Semencha (2020).

Communicative competence is a central indicator of the instrumental component of the professional culture of future educators of preschool education institutions. The communicative competence of the future educator of a preschool education institution is the ability to organize joint activities focused on dialogic communication with pupils on the basis of humanistic principles - love, mutual respect, freedom of creativity, tolerance with the dominant personality of the child, aimed at the successful socialization of the latter, Halchenko & Repetii (2019).

Thus, the communicative competence of the future educator of a preschool education institution is the ability to organize joint activities focused on dialogic communication with pupils on the basis of humanistic principles - mutual respect, freedom of creativity, tolerance with the dominant personality of the child, aimed at the successful socialization of the latter, Halchenko & Repetii (2019).

To increase the level of communicative competence of future teachers of preschool education institutions, it is worth strengthening the speech and communication focus of such educational courses as: "Culture of speech and expressive reading", "Rhetoric", "Ukrainian language for professional direction", "Ukrainian culture", "Children's literature" ", "Psychology of children's creativity", "Preschool language didactics", "Fundamentals of visual arts with guidance methods", "Pedagogical communication training", "Pedagogical interaction of the preschool

education institution with the family", "Organization of psychological assistance to the family", etc. At each of the above-mentioned classes, it is necessary to apply an individual approach to students, to enrich their experience of communicative activity with appropriate professional competences based on the principles of a humanistic approach, Nikolaienko et al. (2022).

The humanistic orientation of the educational process makes it possible to prepare educators with a developed component of spirituality - spiritual communication. Such a teacher talks to pupils and other people benevolently, with unconditional love, remembering the linguistic nature of the genetic apparatus, which has a spiritual component. This testifies to the fact that a teacher's ability to communicate dialogically, that is, his communicative competence, is one of the basic conditions and consequences of the formation of a teacher's professional culture (Halchenko & Repetii, 2019).

Thus, the communicative competence of the future educator of preschool education institutions consists in the ability to establish dialogic, humanistically oriented communication with pupils, in the center of which is the child with his unique inner world "I". At the same time, the communicative competence of the future specialist should be based on his spiritual experience, which the teacher will later pass on to children through dialogue (Nenko et al. 2022).

Therefore, Avdymyrets (2020) believes that communication and dialogue reflect different meanings of human relationships. If communication involves such components as the transfer and reception of information, mutual understanding, reconciliation of relations, finding common interests, then dialogue includes building a common world, which is established with the help of meanings and ethical and moral instructions of the participants of this process (Avdymyrets, 2020).

At the same time, Troitska (2017) proves in her research that com unique dialogic competence is one of the most important in the modern educational space, as it is the basis of forming one's own adequate self-image, getting rid of prejudices, and optimizing a person's self-esteem. The scientist emphasizes the importance of feedback and dialogue, which affect a person's assessment of his behavior, the formation of an adequate "self-concept". In this way, a person is able to better perceive a certain picture of the world, a number of values, in particular moral ones, and as a result, position himself in the surrounding world. The author notes that in the conditions of the development of society, the latest knowledge in the 21st

century, the problem of harmonious education of a person acquires new social significance (Troitska, 2017).

The position of Herasina (2017), which considers communicative competence as "a set of communicative, perceptive and interactive knowledge and skills that determine the subject's ability to navigate in situations of joint activity and interpersonal interaction, make constructive decisions and adhere to the principle of goal setting" is quite relevant (Herasina, 2017, p. 46). Also interesting is the theory of communicative competence proposed by Hymes (1972), which consists of four types of knowledge:

1. Whether (and to what extent) something is formally possible;
2. Whether (and to what extent) something is feasible;
3. Whether (and to what extent) something is suitable;
4. Whether (and to what extent) something is actually done.

A similar position is held by Savignon (1997), who believes that communicative competence depends on the context of communication, which always occurs in a certain situation. Someone who has communicative competence knows how to make the right choice, to choose a style according to the specific situation in which communication takes place.

The importance of intercultural communication is emphasized by researcher Harper (2019), who believes that given the current world trends of globalization, a student may well need intercultural communication skills, even if he never leaves his country. Xue (2014) shares the same opinion. The author believes that language and culture are inseparable from each other. When we study English, for example, we will not only develop language skills, that is, listening, speaking, reading and writing skills, but we will try to understand the meaning of behavior, values and other cultural backgrounds of representatives of English-speaking countries. A future teacher must be fluent in English in order to actively participate in world-class scientific conferences, enrich and expand their professional competences (Karasievych et al. 2021).

In turn, Portuguese researchers Bastos & Araújo e Sá (2015) believe that thanks to the development of information and communication technologies (ICT), mobility (real/virtual) and migration, intercultural and multilingual meetings are becoming more frequent today. To meet the challenges inherent in such encounters, the development of intercultural communication competence is crucial. Therefore, teachers need to integrate the intercultural dimension into their professional practice.

The interpretation of communicative competence of future teachers by researchers of Bukhara State University (Uzbekistan) is especially valuable for research. Scientists consider the idea that the development of communicative competence can contribute not only to the interactive competences of a student from an educational point of view, but also to psycho-emotional characteristics and socio-cultural development as an individual. According to them, communicative competence is an ability that means effective interaction with others, and competence is understood as a set of speaking skills that a person possesses in order to learn a language. Such potential contributes to students' achievement of a high level of productivity (Halimovna et al. 2019).

In turn, Okoli (2017) in his research emphasizes the importance that teacher education should focus on those qualities that will make a teacher more effective. To be effective, a teacher must know the content of the discipline and possess communication skills, since one cannot be achieved without the other.

Methodological features of the formation of communicative competence in teachers.

Communicative competence is formed in a person in the process of obtaining an education, as well as in the process of socialization. In order to establish the most effective approaches to the formation of communicative competence, it is necessary to determine effective methods and technologies. The associative experiment turned out to be important for the research. Its use with students made it possible to build the associative fields of the concept of "communicative competence" in order to reconstruct the conceptual picture of the future teacher's world.

The associative experiment was first used in psychology, Luria (1979). It was aimed at identifying associations that arise in an individual based on his previous experience. There are such types of associative experiment as free (spontaneously name the first words that came to mind), purposeful (there is a restriction on the production of associative words, for example, name only verbs), chain (a certain period of time is given for the production of associations) Horoshko (2001). We used the third option - a chain type of associative experiment.

The researchers note that the associative experiment reflects the linguistic reality and helps reveal the specificity of the worldview of a certain category of people.

Thus, in order to identify the level of understanding of the students of the specialty "Preschool Education" of the concept of "communicative competence", the results of a chain associative experiment were analyzed. During 10 minutes, students were asked to write definitions-associations for the concept of "communicative competence" on a piece of paper. The analysis of stimuli was carried out in two aspects: conceptual and motivational-value. The psycholinguistic analysis of the results of the conceptual analysis showed significant differences in the production of definitions-associations by students of the 2nd year of the bachelor's degree and the 1st year of the master's degree. The 2nd year students reacted to the verbal stimulus "communicative competence" as follows: 65% of students gave (from 1 to 3 verbal reactions), 35% (up to 5 verbal reactions). Among them, we consider communication, interaction, contact to be the core reactions of the associative stimulus field. Identification of the mentioned concept with professional activity was observed in the linguistic consciousness. This is evidenced by the following expressions recorded during the experiment: "communication with children", "interaction with pupils", "contact with parents of pupils".

The results of the diagnosis of the master's students of the 1st year of study differed significantly from the results of the students of the 2nd year of the bachelor's degree, because the professional training experience of the master's students is greater than in the 2nd year of the previous educational degree, Saranchaet al. (2022). To the verbal stimulus "communicative competence" students of the 1st year of the master's course reacted as follows: 45% of students gave (from 1 to 5 verbal reactions), 55% (more than 5 verbal reactions). Their statements-associations were represented by such nuclear reactions of the associative field as: dialogue, professionalism, mutual understanding, empathy, social perception.

Such associative reactions of the researched testifies to the master's students' better awareness of the most important components of communicative competence, the informational and motivational value content of this concept.

Thus, for 1st-year master's students, the motivational and value aspect is the leading lever in understanding the concept of "communicative competence", in contrast to 2nd-year bachelor's students, who are dominated by the conceptual component. It was also found that master's students, unlike second-year bachelor's students, interpret the concept of "communicative competence", revealing the perceptual-reflective aspect, in particular, in their opinion, "communicative competence is the ability of an

individual to understand the inner world of another person and to improve his own, improving thus interpersonal interaction". Therefore, it is worth adding a perceptive-reflexive component to the structure of the associative field of the stimulus "communicative competence".

Psycholinguistic features of students' understanding of the concept of communicative competence

The analysis of the scientific literature and the results of the experimental study proved that students of different courses understand the concept of "communicative competence" in different ways. A significant difference was also found regarding the nuclear responses of their associative field to the stimulus "communicative competence". Therefore, from the point of view of psycholinguistics, the process of understanding speech in general and concepts in particular occurs differently in different categories of people, depending on their previous experience.

In particular, Chinese researchers from Beijing Normal University, Xiaohong et al. (2013) share a similar opinion, who believe that sensory experience is a key factor for concrete concepts, and language contexts are an important factor for abstract concepts. At the same time, the authors note, concrete concepts contain more perceptual features, and abstract ones - more functional ones (Xiaohong et al. (2013).

Confirmation of the reliability of the research results can be found in many scientific investigations of psychologists and psycholinguists of the present and past. In particular, the mechanisms of perception, understanding and generation of speech were studied by domestic and foreign scientists of the present and the past (Lurya, 1979; Nedashkivska et al. 2015; Rumyantseva, 2004). According to the researchers, speech perception is the process of establishing meaning, which is behind the external form of speech utterances. Perception of speech takes place on two levels: first as the actual perception, and then as an understanding of the speech expression.

Here it is worth referring to the research of Vygotskyi (2001), who claimed that the understanding of speech occurs from the whole to the part, and production, on the contrary, from the part to the whole Vygotskyi (2001).

The position of Lurya (1979) is also important for research. In particular, the scientist, analyzing the complexes of associative meanings that spontaneously arise during the perception of words (concepts), notes that the word not only doubles the world, not only ensures the appearance of relevant ideas, but is a powerful tool for analyzing that world, conveying social experience regarding the subject, the word takes us beyond sensory experience, allows us to enter the realm of the rational, Lurya (1979).

This is confirmed in the writings of Nedashkivska et al. (2015), who, through the analysis of lexicological and terminological content, singled out the following components of the semantic core: action, activity, ability to carry out activity, performance, implementation, result, behavior, standards of behavior, skills, knowledge, ability, structure, experience, qualification, contacts, values, assessment, range of issues, abilities, ability, readiness, individual qualities and properties, specific tasks, professional functions, condition, quality, property, spiritual, mental, physical conformity, Nedashkivska et al. (2015).

Such modern researchers as Sharavara et al. (2018) have studied how students of the 1st-2nd years of the Poltava National Agrarian Academy understand the concept of "competence". They carried out a comparative analysis of the results of their own experimental research with the interpretation of the concept of "competence" proposed above by Nedashkivska et al. (2015). Based on the results of a free associative experiment, the above-mentioned scientists identified common and different characteristics of the concept of "competence". Such associative reactions as awareness, knowledge, professionalism, and skill were classified as common. In turn, some differences were found that expanded the core of the associative field with such reactions - politeness, responsibility, respect, work, correctness, experience, profession, professionalism, intelligence. Sharavara et al. (2018).

The scientists attributed the following areas to the structure of the associative field of the stimulus "competence" - value-motivational, logical-conceptual, emotional-affective. The results of the experiment proved the dominance of the mental level of images of consciousness over the emotional one, as well as maintaining a certain balance between the logical-conceptual and value-motivational spheres (Sharavara et al. 2018).

Conclusions

Taking into account the above, it should be noted that communicative competence is one of the criteria of the instrumental component of the professional culture of the future educator of a preschool education institution. It consists in the ability of the future teacher to establish dialogic, humanistic communication with pupils, parents, colleagues, to understand the inner world of another person and to reveal his own, mastering the skills of social perception.

The analysis of the free associative experiment made it possible to record verbal reactions in the language consciousness of future teachers of preschool education institutions, which testify to their understanding of the concept of "communicative competence" as an important indicator of the level of professional culture. At the same time nuclear reactions master students of the 1st year of study on the phrase-stimulus "communicative

competence" turned out to be significantly more meaningful than those of the students of the 2nd year of the bachelor's degree. To the structure of the associative field of the stimulus "communicative competence" we included such spheres as conceptual, value-motivational, perceptual-reflexive, while manifestations of the latter appeared only in master's students.

An important achievement of the research is the identification of the dominance of the motivational-value aspect in combination with the perceptual-reflective aspect in the language consciousness of senior year students, which, in turn, are criteria for the formation of the professional culture of future educators of preschool education institutions.

Prospects for further research are to identify the dynamics and perform a psycholinguistic analysis of students' understanding of the concepts that make up the structure of the professional culture of future preschool teachers.

Acknowledgment

1st author - communicative competence as an important component of the professional culture of future educators of preschool education institutions is defined and substantiated; an associative experiment was conducted with students of the "Preschool Education" specialty of the National Pedagogical University named after M.P. Drahomanov, described the results of the experiment.

2nd author - an analysis of philosophical sources was carried out, the spiritual component of the concept of "communicative competence" and the significance of its formation in future educators of preschool education institutions were characterized.

3rd author - analysis of the scientific output of foreign researchers was conducted and presented.

4th author – the peculiarities of the application of the associative experiment in psychology and psycholinguistics are analyzed.

5th author – research on the content of communicative competence by modern psycholinguists based on the competence approach is analyzed.

6th author – the educational and professional training program for students of the "Preschool Education" specialty was analyzed in order to strengthen the speech and communication focus of individual educational courses.

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