

## Interaction of Communicative Creativity and Primary School Students' Creativeness in the Context of Educational Environment

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### ABSTRACT

**Objective.** Cognitive and communicative development is one of the most fundamental directions of a primary school age student. Developing the educational environment as a psychological and pedagogical domain requires a set of specially organized psychological and pedagogical conditions. These include social and subject-development space interaction resulting in the development and formation of the personality. This research is aimed at studying the features of communicative creativity and creativeness development of primary school students in the context of conditions formed in a specific educational environment.

**Design.** The methodology is based on socio-cultural concepts devoted to “environmental” influence on mental development of an individual (Vygotsky, 1962; Bronfenbrenner, 1999). Nine experts took part in the research who were psychologists of educational institutions of the Republic of Tatarstan. Other participants included high school teachers, master students of Kazan, and 100 students of different educational institutions of the Republic of Tatarstan aged 9 to 10.

All diagnostic procedures have been conducted in a complete accordance with standard diagnostic use of unified forms, instructions and stimulating materials. The results' validity was assisted by preliminary preparation of the experts via a series of seminars devoted to elaboration of agreed upon assessments. In both theoretical and empirical studies of the formation of communicative activity of primary school students (in the context of the reality formed in a specific educational environment), the following methods were used: theoretical research methods, which provide data interpretation and build correct logical connection of evidence; empiric measurement methods; statistical methods for processing research results (descriptive statistics, single-factor analysis of variance, cluster analysis).

**Results.** Empirically, the features of the development of communicative creativity and primary school age children's creativeness (in the context of the variability of the educational environment and the joining of the parameters of the educational environment

with the personal characteristics of children) are revealed. Based on cluster analysis, four types of primary school students (depending on degree of communicative creativity and creativeness components) are distinguished.

**Conclusion.** The psychological and pedagogical bases of educational and pedagogical influence strategies needed for students can be characterized. The effectiveness of the cluster analysis and the typological approach in the study of the creative communication process and individual communicative activity is demonstrated.

**Keywords:** Communicative creativity, creativeness, educational environment, primary school age

**Highlights:**

- The concept of “communicative creativity” is broad and includes not only communicative development, but also the development of creative potential and speech/thinking activity. This implies that the development of thinking and speaking are closely interrelated and mutually dependent.
- Cluster analysis of four types of primary school students, depending on intensity of communicative creativity indicators, was completed. The types include: “sensitive”, “demonstrative”, “capable” and “creative”.
- Different modalities of educational systems impact the level of development of the communicative creativity of younger school children. An indispensable pedagogical condition for cognitive and communicative development is the creation of a favorable educational environment for school students.

**АННОТАЦИЯ**

**Актуальность.** Когнитивное и коммуникативное развитие является одним из приоритетных направлений развития ребенка в младшем возрасте. Развивающая образовательная среда как психолого-педагогическая реальность определяет комплекс специально организованных психолого-педагогических условий, включенных в социальное и предметно-развивающее пространство, в результате взаимодействия с которыми происходит развитие и становление личности.

**Цель:** изучение особенностей развития коммуникативного творчества и креативности младших школьников в контексте той реальности, которая сложилась в конкретной образовательной среде.

**Дизайн.** Методология исследования строится на социокультурных концепциях, посвященных «средовым» влияниям на психическое развитие личности (Выготский, 1962; Бронфенбреннер, 1999). В исследовании приняли участие 9 экспертов: психологи образовательных организаций, преподаватели вузов, магистранты г. Казани и 100 учащихся различных образовательных учреждений Республики Татарстан в возрасте от 9 до 10 лет. Все диагностические процедуры проводились в полном соответствии с диагностическим стандартом — с едиными бланками, инструкциями и стимульными материалами. Надежность результатов исследования была обеспечена предварительной подготовкой экспертов на серии семинаров, которые были посвящены выработке согласованной оценки. В теоретическом и эмпирическом изучении становления коммуникативной активности младших школьников в контексте той реальности, которая сложилась в конкретной образовательной среде, использовались следующие методы: теоретические методы исследования, которые позволяют осуществить интерпретацию данных, построить правильную логическую цепочку доказательств; эмпирические методы измерения; статистические методы обработки результатов исследования (описательная статистика, однофакторный дисперсионный анализ, кластерный анализ).

**Результаты.** Эмпирическим путем выявлены особенности развития коммуникативного творчества и креативности детей младшего школьного возраста в кон-

тексте вариативности образовательной среды и сопряженность параметров образовательной среды с личностными характеристиками детей. На основе кластерного анализа выделено четыре типа младших школьников в зависимости от выраженности компонентов коммуникативного творчества и креативности.

**Выводы.** Охарактеризованы психолого-педагогические основы проектирования развивающей образовательной среды и стратегии педагогического воздействия, проявляющиеся в процессе работы с учащимися. Показана эффективность и целесообразность использования метода кластерного анализа и типологического подхода в изучении процесса творческого общения и коммуникативной активности личности.

**Ключевые слова:** Коммуникативное творчество, креативность, образовательная среда, младший школьный возраст

**Ключевые положения:**

- Понятие «коммуникативное творчество» является более обширным и включает в себя не только коммуникативное развитие, но и развитие творческого потенциала и речемыслительной деятельности, под которым понимается развитие мышления, речи, которые тесно взаимосвязаны и взаимообусловлены. Коммуникативное творчество изучается как сам процесс творческого общения, а коммуникативная креативность — система психологических свойств личности, обеспечивающих творческий характер общения и коммуникативной активности ребенка.
- В результате кластерного анализа было выделено четыре типа младших школьников, в зависимости от выраженности показателей коммуникативного творчества. К этим типам относятся: «сенситивный», «демонстративный», «способный» и «креативный» типы.
- Тип модальности образовательной системы влияет на уровень развития коммуникативного творчества младших школьников. Непременным педагогическим условием познавательного и коммуникативного развития является создание благоприятной образовательной среды для школьников.

**RESUMEN**

**Introducción.** El desarrollo cognitivo y comunicativo es una de las líneas del desarrollo más fundamentales para un estudiante de la edad escolar primaria. Desarrollar el ambiente educativo como un dominio psicológico y pedagógico requiere un conjunto de condiciones psicológicas y pedagógicas especialmente organizadas. Estas incluyen la interacción social y del espacio del desarrollo del sujeto que tiene como resultado el desarrollo y la formación de la personalidad.

**Objetivo.** Esta investigación tiene como objetivo estudiar las características de la creatividad comunicativa y el desarrollo de la creatividad de los estudiantes de primaria en el contexto de las condiciones formadas en un entorno educativo específico.

**Diseño.** La metodología se basa en conceptos socioculturales dedicados a la influencia “ambiental” en el desarrollo mental del individuo (Vygotsky, 1962; Bronfenbrenner, 1999). En la investigación participaron nueve expertos que eran psicólogos de instituciones educativas de la República de Tataristán. Otros participantes incluyeron profesores de secundaria, estudiantes de maestría en Kazán y 100 estudiantes de diferentes instituciones educativas de la República de Tataristán de 9 a 10 años. Todos los procedimientos de diagnóstico se llevaron a cabo de acuerdo con el uso de diagnóstico estándar de formularios unificados, instrucciones y materiales estimulantes. La validez de los resultados fue avalada por la preparación preliminar de los expertos a través de una serie de seminarios dedicados a la elaboración de evaluaciones consensuadas. Tanto en los estudios teóricos como

empíricos de la formación de la actividad comunicativa de los estudiantes de primaria (en el contexto de la realidad formada en un entorno educativo específico), se utilizaron los siguientes métodos: métodos de investigación teóricos, que proporcionan interpretación de datos y construyen una conexión lógica correcta de evidencia; métodos empíricos de medición; métodos estadísticos para procesar los resultados de la investigación (estadística descriptiva, análisis de varianza de un solo factor, análisis de conglomerados).

**Resultados.** Empíricamente, se revelaron las características del desarrollo de la creatividad comunicativa y de la creatividad de los niños en edad escolar primaria (en el contexto de la variabilidad del entorno educativo y la unión de los parámetros del entorno educativo con las características personales de los niños). Basándose en el análisis de conglomerados, se distinguieron cuatro tipos de estudiantes de primaria (según el grado de creatividad comunicativa y componentes de la creatividad).

**Conclusión.** Se pueden caracterizar las bases psicológicas y pedagógicas de las estrategias educativas y de influencia pedagógica necesarias para los estudiantes. Se demuestra la eficacia del análisis de conglomerados y el enfoque tipológico en el estudio del proceso de comunicación creativa y la actividad comunicativa individual.

**Palabras clave:** Creatividad comunicativa, creatividad, ambiente educativo, edad escolar primaria

#### Destacados

- El concepto de “creatividad comunicativa” es amplio e incluye no solo el desarrollo comunicativo, sino también el desarrollo del potencial creativo y la actividad del habla/pensamiento. Esto implica que el desarrollo del pensamiento y habla están estrechamente interrelacionados y son mutuamente dependientes.
- Se completó el análisis de conglomerados de cuatro tipos de estudiantes de primaria, según la intensidad de los indicadores de creatividad comunicativa. Los tipos incluyen: «sensible», «demostrativo», «capaz» y «creativo».
- Las diferentes modalidades de los sistemas educativos impactan en el nivel de desarrollo de la creatividad comunicativa de los escolares más jóvenes. Una condición pedagógica indispensable para el desarrollo cognitivo y comunicativo es la creación de un ambiente educativo favorable para los escolares.

#### RESUME

**Objetif.** Le développement cognitif et communicatif est l'une des directions les plus fondamentales d'un élève d'âge scolaire primaire. Développer l'environnement éducatif en tant que domaine psychologique et pédagogique nécessite un ensemble de conditions psychologiques et pédagogiques spécialement organisées. Celles-ci incluent l'interaction sociale et l'espace de développement du sujet résultant du développement et de la formation de la personnalité. Cette recherche vise à étudier les caractéristiques de la créativité communicative et du développement de la créativité des élèves du primaire dans le contexte de conditions formées dans un environnement éducatif spécifique.

**Conception.** La méthodologie est basée sur des concepts socioculturels consacrés à l'influence « environnementale » sur le développement mental d'un individu (Lev Vygotski, 1962 ; Urie Bronfenbrenner, 1999). Neuf experts ont participé à la recherche qui étaient des psychologues des établissements d'enseignement de la République du Tatarstan. Parmi les autres participants figuraient des enseignants du secondaire, des étudiants de la magistrature de Kazan et 100 étudiants de différents établissements d'enseignement de la République du Tatarstan âgés de 9 à 10 ans. Toutes les procédures de diagnostic ont été menées en parfaite conformité avec l'utilisation diagnostique standard de formulaires, d'instructions et de matériaux stimulants unifiés. La validité des résultats a été facilitée par la préparation préalable des experts par l'intermédiaire d'une série de séminaires consa-

crés à l'élaboration d'évaluations convenues. Dans les études théoriques et empiriques de la formation de l'activité communicative des élèves du primaire (dans le contexte de la réalité formée dans un environnement éducatif spécifique), les méthodes suivantes ont été utilisées: méthodes de recherche théoriques, qui fournissent une interprétation des données et construisent une connexion logique correcte de preuves ; méthodes de mesure empiriques; méthodes statistiques de traitement des résultats de recherche (statistiques descriptives, analyse de variance à un seul facteur, analyse par grappes).

**Résultats.** Empiriquement, les caractéristiques du développement de la créativité communicative et de la créativité des enfants d'âge scolaire primaire (dans le contexte de la variabilité de l'environnement éducatif et de l'articulation des paramètres de l'environnement éducatif avec les caractéristiques personnelles des enfants) sont révélées. Sur la base d'une analyse par grappes, quatre types d'élèves du primaire (selon le degré de créativité communicative et les composantes de la créativité) sont distingués.

**Conclusion.** Les bases psychologiques et pédagogiques des stratégies d'influence éducatives et pédagogiques nécessaires aux élèves peuvent être caractérisées. L'efficacité de l'analyse typologique et de l'approche typologique dans l'étude du processus de communication créative et de l'activité communicative individuelle est démontrée.

**Mots-clés:** Créativité communicative; créativité; environnement éducatif; âge scolaire primaire

**Points principaux:**

- Le concept de « créativité communicative » est large et inclut non seulement le développement communicatif, mais également le développement du potentiel créatif et de l'activité de parole/réflexion. Cela implique que le développement de la réflexion et de la parole sont étroitement liés et mutuellement dépendants.
- L'analyse du partitionnement de donnée de quatre types d'élèves du primaire, en fonction de l'intensité des indicateurs de créativité communicative, a été réalisée. Les types incluent : « sensible », « démonstratif », « capable » et « créatif ».
- Différentes modalités des systèmes éducatifs ont un impact sur le niveau de développement de la créativité communicative des jeunes écoliers. Une condition pédagogique indispensable au développement cognitif et communicatif est la création d'un environnement éducatif favorable pour les élèves.

## Introduction

Currently in psychological and pedagogical science, the environmental approach to the study of different features of a personality is widely used. Amongst many Russian and foreign psychologists, this is reflected by the use of Vygotsky's concept. Vygotsky repeatedly argues about the social conditionality of the formation of higher mental functions and the consciousness of the child (Vygotsky, 1982). Analyzing the role of environment in the development of personality, Vygotsky pays a lot of attention to the process of interiorization (Vygotsky, 1984), zones of closest development (Vygotsky, 1991), and dialogue (Vygotsky, 1982). Elkonin also thought that the child's personality is formed under environmental influence and interaction with social subjects (Elkonin, 1997).

Environmental approach to the study of personality has been widely studied by foreign psychologists including Bronfenbrenner. He distinguished four ecological systems having a specific impact on a child's growth (Bronfenbrenner, 1989). In Manuilov's work, environmental approach is "an ability to organize environment

and optimize its influence on a school student's personality" (Manuilov, 1997). Environment is the basic ground for studying a child's development and upbringing, which occur under a certain set of socio-cultural and interpersonal conditions. Such a domain is considered by teachers and psychologists as the educational environment.

A number of scientists have paid special attention to the definition of "environmental approach", analyzing its structure, i.e. functions, levels, types. Lerner pointed out that educational environment has an ability to define and form a human's image and his/her place in the modern world (Lerner, 1995). According to Krylova, educational environment is one of the components of socio-cultural space "where different educational processes interact" (Krylova, 2000).

Also, several scientists have taken into consideration different typologies of educational environment. These typologies include:

- 1) School educational environment (Belyaeva, 2014; Bodenko, 1999; Zapyataya, 2011; Ivanilova, 2001; Mamysheva, 2011; Nikolayeva, 2010; Spitsyna, 2006; Taktuyeva, 2002; Ulanovskaya, 2002 etc.);
- 2) Family educational environment (Arslanova, 2008);
- 3) Educational environment of institutions of higher education (Makarova, 2000; Fadeeva, 2010);
- 4) Educational environment of the specialized "secondary school — the school of arts" (Yakovleva, 2005).

Qualitative analysis of the conditions and features of social environment in which a child develops, is a central task in the pedagogical system of Korchak.

In his popular work "How to Love a Child", he distinguished and described four types of "educational environment", based on freedom/dependence and activity/passivity. The four types were: dogmatic, ideological, serene, and an environment stressing career-goals and image (Korchak, 2007, p.212).

The idea of the influence of educational environment on the child's development was widely revealed in the concept of the famous scientist, biologist, and teacher Lesgaft. According to his opinion, social environment, especially the educational one, is the central source and factor of the child and his/her ability for development (Lesgaft, 2014).

According to Yasvin, educational environment presents a system of influences and conditions for the formation of a personality based upon the existing reality as well as conditions for personality development, contained in social and spatial-objective surroundings (Yasvin, 2001).

Modern educational institutions fulfilling their role in the development of the child's personality and future potential, pay special attention to the formation and improvement of students' ability to actively present themselves, freely express their thoughts, be flexible and change style of communication according to the situation, and have a creative approach to any issue. In other words, there is an increasing need for the formation of students' communicative creativity. The concept of "communicative creativity" is much broader and includes not only communicative development, but also the development of creative potential and speech/thinking activity. The latter

implies that the development of thinking and speaking, are closely interrelated and mutually dependent.

The concept of “communicative creativity” is central to our research and includes both the process of creative communication and communicative activity of the individual, reflecting the originality and non-standard solutions of the individuals’ situations in interpersonal communication (Krest’yaninova, 2012).

In psychology, communicative creativity implies the “system of psychological features of the individual, providing communication and communicative activity of a child with creative character”. The system of these features is presented by the complex of cognitive, motivational, emotional, and moral and spiritual characteristics of a child’s behavior (Martyshkina, 2006, p.59). The cognitive component includes the individual’s ability to analyze his/her communicative behavior and communicative behavior of others. The motivational component means the active desire to get, create and transfer information, expressing interest in the partner’s personality and the communicative situation. The emotional-volitional component is characterized by an ability to regulate personal emotional state, emotional attitude to communication, and the lack of emotional tension and fear of interacting with other people. The personal component reflects personal characteristics defining creative communication ability. The defined elements are essential in determining the students’ communicative creativity and the level of its formation.

According to the given definitions, one can conclude that communicative creativity is studied as a process of creative communication itself and is the individuals’ feature which allows change, rejection of stereotypes, and discovery and the use of solutions in communicative situations. Thus, taking into consideration the inseparability of these concepts, we can study the process of communicative creativity indirectly through the system of the individual’s features, i.e. through the communicative creativity.

A principled approach to the study of communicative skills and development of communicative creativity is presented in Vygotsky’s works, who defines communication and interaction with the environment as one of the meaningful factors in children’s development. According to Vygotsky’s concept, it can be concluded that creating conditions for effective development of children’s communicative creativity is the most important task as the effectiveness and quality of the process largely depend on the level of communicative skills of the communication subjects.

Going back to Yasvin’s idea, it can be admitted that an ideal variant of development is supposed to be the education of a “normal type” (according to Legaft) in an “ideological environment” (according to Korchak) which is the most positive for formation of the child’s communicative creativity.

Currently, many studies are devoted to the problem of the development of expertise in the educational environment and directed to the assessment of the quality of education and its influence on the child’s personality formation. But a considerably smaller number of studies aim at determining the role of educational environment in the peculiarities of the formation of the communicative creativity of primary schoolchildren.

The aim of our work is the theoretical study of the peculiarities of the formation of the communicative activity of primary schoolchildren in the context of the reality that is formed by a particular educational environment.

## **Methods**

The following types of educational institutions of the Republic of Tatarstan took part in the study of communicative creativity of primary schoolchildren in different kinds of educational environment: secondary schools and physics and mathematics specialized institutions. The total number of respondents is 100 children: 54 boys and 46 girls, all aged 9-10 (4th grade students).

In theoretical and empirical study of the influence of the qualitative characteristics of the educational environment on the communicative creativity of primary school students, the following methods were used: theoretical research methods, empirical (question-diagnostic, expert assessment, testing); statistical methods of empirical research results assessment (descriptive statistics, one-factor dispersive analysis, cluster analysis, qualitative analysis).

Diagnostically, in the measuring and identification of the features of communicative creativity of primary school students, the following types of educational environment testing methodology were used:

1. Assessment of the quality characteristics of the educational environment based on vector modeling of the educational environment according to Yasvin (2001, p.14)
2. Verbal creativity diagnostics (adaptation of Mednik's test) (Mironova, 2006, p.127)
3. Johnson's creativity questionnaire (in Tunik's adaptation) (Il'in, 2001, p.265)
4. "The diagnostic of communicative control" (Shneider) (2002, p.120)
5. Adapted modified version of Kettel's children's personality questionnaire (Aleksandrovskaya, 1995, p.25).

## **Results**

On the first stage of the research, complex expert assessment of the qualitative parameters of educational environment was carried out (Yasvin, 2001, p.14]. This methodology let us conduct diagnostics of the educational environment by the following "basic" parameters: modality, intensity, broadness, stability, and the degrees of awareness; and by additional parameters like activity, emotionality, dominance, generality, coherence, and mobility.

The career type of modality included the school of physics and mathematics. According to the expert analysis, it was revealed that this educational environment is characterized by high intensity and marked by in-depth study of particular subjects and lower breadth of educational environment, manifested in limited social contacts with other subjects of educational environment. The environment of such educational institutions is characterized by their intensity, which is reflected in the evaluation of the development of these school students. These students show an aptitude for dynamic change.



Specialized school was assigned to the creative type of educational environment in which the self-development of a free and active person takes place.

According to the results of the assessment of the qualitative characteristics of the educational environment, the comprehensive school has a dogmatic type of modality, which is characterized by high generality values and low activity, mobility, breadth, intensity and coherence. Educational institutions' activity differs by stability, clear concept, strict regulations of educational process, the disciplinary system of the educational process and the lack of individualization.

The analysis of empirical data reveals the personality types and their frequency in different types of educational environment.

One of the basic assumptions is the idea of communicative creativity from the standpoint of holistic education, which indicates related characteristics or components to be used as diagnostic. In other words, not *particular* components like cognitive, motivational, emotional-volitional and personal are diagnosed, but their set reflecting system characteristics of the individual *in general*. Such an individual includes characteristics mentioned above. To confirm this thesis, cluster analysis was used for the mathematical analysis of data.

The cluster analysis method presents a procedure of ordering into comparatively homogeneous classes a pairwise comparison of objects according to predefined and measured criteria. Cluster analysis solves the task of forming classifications, i.e., dividing a set of source data into groups or clusters.

Using diagnostic indicators (cognitive, motivational, emotional-volitional, and personal components of communicative creativity) as classification criteria, the procedure of cluster analysis of the initial sample was carried out. During the data analysis a cluster analysis of average data was used (K-means Clustering) along with the method of complete linkage (Complete Linkage), enabling the definition of compact clusters consisting of similar elements.

Based upon the results of cluster analysis, four types of primary school students with different variants of communicative creativity component combinations were defined. To give a complete characterization of each cluster, the average values of components were calculated.

*Table 1* shows the average values of the indicators of communicative creativity of primary school students, which served as a classification criterion when conducting a cluster analysis on a sample of primary school children.

Depending on content characteristics of each cluster, they were designated with the following names: "sensitive", "demonstrative", "capable", "creative".

Here is a qualitative analysis of each cluster, based on values of source indicators.

1) "Sensitive" includes 15 testees, which is 15% of the total number of testees. The main feature of this primary schoolchildren group is a low level of communicative creativity, reflected in a limited range of interests, selective activity, and difficulties in solving non-standard or creative tasks. Nevertheless, these children are characterized by their responsibility, neatness, credulity, and gentleness. They need love and attention from surrounding people. This explains why they can easily make contact and be indulgent and kind in communication with others.

Table 1

*Average values of indicators of communicative creativity of primary school students*

Indicators	1 cluster	2 cluster	3 cluster	4 cluster
Originality	0,79	0,68	0,76	0,7
Uniqueness	0,67	0,54	0,65	0,56
Emotional-volitional	5	6	6	7
Motivation component	19	26	27	34
Sociability	4	4	5	6
Verbal intellect	6	7	8	6
Self-confidence	5	5	5	6
Excitability	4	8	6	7
Aptitude to self-affirmation	4	8	6	6
Risk aptitude	6	6	7	6
Responsibility	7	5	5	4
Social courage	7	4	8	7
Sensibility	7	4	5	5
Anxiety	5	8	4	6
Self-control	5	4	4	4
Nervous tension	5	7	4	6

2) The biggest group, the “Demonstrative”, is almost half of all testees (49 primary schoolchildren — 49%). Such children show creativity only in particular types of activity, which are the most meaningful for them. Also, such students are characterized by increased excitability, and a striving for leadership, dominance, and authority. They like to command, rule other people, and control them. At the same time, when they are refused they experience violent reactions, the undermining of their mental balance and can experience failure for quite a long time.

3) The “Capable” group consists of 25 subjects, which is 25% of the entire sample. Primary school students belonging to this group are characterized by a high level of creativity which is manifest in their activity. They are rather quick to solve creative tasks, strive to receive, create and transmit information, find non-standard ways out of situations and problems, and at the same time they feel insecure about themselves and their abilities. Also, these children easily make contact and do not have any difficulties in communicating both with peers and adults. In addition, they are characterized by a high level of verbal intellect reflected in their ability to summarize, separate particular from general, and develop logics and abstract thinking.

The last group is presented by 11 students (11%) who form a class of “creative” children. They are characterized by a very high level of communicative creativity. Thus, they have a wide range of interests, flexible thinking, develop innovative ideas, solve problems, make immediate decisions, and switch from one type of activity to another without any difficulty. Consequently, they are also characterized by increased excitability, unstable attention, destructiveness, and increased activity. Nevertheless, they are very open and sociable and can easily make contact, and do not get lost in non-standard situations. These non-standard situations include public speech and activities involving risk-taking and thrill-seeking.

So, as the result of the cluster analysis, *four types* of primary school students, depending on intensity of communicative creativity indicators, were distinguished. These types are: “sensitive”, “demonstrative”, “capable” and “creative”.

With the help of more detailed analysis of the distinguished types, the occurrence frequency by type in different educational environment was studied. The results are given in *Table 2*.

Table 2

*Frequency of personality types in different educational environment*

Type of educational environment	«Sensitive» type	«Demonstrative» type	«Capable» type	«Creative type»
Serene environment	4 testees (80%)	1 testee (20%)	-	-
Dogmatic environment	2 testees (15%)	9 testees (70%)	-	2 testees (15%)
Career environment	-	40 testees (76%)	8 testees (15%)	5 testees (9%)
Creative environment	9 testees (31%)	-	16 testees (55%)	4 testees (14%)

According to the data, the most frequent type in serene environments is “sensitive” (80% of all students). The vast majority in dogmatic environments is “demonstrative” type (70%). Similarly, in career environments, approximately 76% of all students are “demonstrative” personalities. The creative environment includes “capable” primary school students (55%).

## Conclusion

Thus, the analysis of the features of the communicative creativity of younger school students in five educational organizations enabled us to determine the influence of the type of modality of the educational system on the level of development of the communicative creativity of younger school children. More than that, having divided source data of communicative creativity into groups proved (depending on the degree of formation of a particular component of communicative creativity) that there are certain types of speech-thinking and communicative activities of younger school children in different types of educational environment.

An indispensable pedagogical condition for cognitive and communicative development is the creation of a favorable educational environment for all school students. We need to offer modern models for the development of speech-cognitive activity

of children that meet modern requirements for building models of the educational environment (Bayanova, Shishova, 2019; Khotinets, Medvedeva, 2021).

### **Ethics Statement**

All diagnostic procedures have been conducted in complete accordance with diagnostic standards — with the use of unified forms, instructions and stimulating materials. The results' validity was provided by preliminary preparation of the experts during a series of seminars, devoted to elaboration of the agreed assessment. Written informed consent to participate in this study was provided by each parent.

### **Author Contributions**

E.O. Shishova designed and directed the project, who developed the theoretical framework; A.Z. Akhatova performed the experiments, performed the analysis, drafted the manuscript; E.O. Shishova aided in interpreting the results and worked on the manuscript. All authors discussed the results and contributed to the final manuscript.

### **Conflict of Interest**

The authors declare no conflict of interest.

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