

Transcommunicative Model of Development of Ecological Culture of the Participants of the Educational Process

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ABSTRACT

The relevance of this research is on the one hand caused by the need of ecological culture as integral part of the general culture of the personality, on the other, by the existence of the contradictions in the environmentally oriented education, which aren't allowing to form an ecological position of the personality. In this regard this research is directed to clarification of a role of a communicative event in a pedagogical dialogue and to the creation of the model allowing to develop ecological culture of the participants of educational process. The integrated pedagogical approach based on the communicative system of the personality and his or her manifestation in the communicative act became leading in research of the problem. The theoretical and logical analysis of the data obtained from the questionnaires drove us to the conclusion that for the development of an ecological culture there is a need to create a communicative event for value exchange in the teacher-student dialogue. The necessary conditions for the development of the ecological culture of the students and the teachers are revealed. The article suggests transcommunicative model of the development of a personal ecological culture. The basic components of a personal ecological culture have been outlined: ecological values, ecological credo, ecological position. The definition of the model as transcommunicative stresses the presence of the transpersonal level of communication and, therefore, the actualization of the meanings common to all mankind. Materials of the article are of practical value considering a possibility of developing the environmentally oriented education based upon the transcommunicative model.

KEYWORDS

Ecological culture; ecological values; ecologically position; ecological credo; students; teachers; communicative event; trans communicative model of the development of the ecological culture

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Introduction

Urgency of the problem

Ecological education and the development of the personal ecological culture are highly discussed today by various scientists. The importance of the ecological education is acknowledged by environmentalists, environment protectionists,

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teachers and various scientists both in education and businesses. Most important questions of all the environmentally based education seem to be those of the environmental upbringing, which is the foundation of the personal ecological position and is a part of the personal ecological culture. Moral values regarding the system “Nature – Human – Society” are important components of the ecological culture today and become integral part of the human culture regardless professional orientation or the social status. More than that, the higher social status is, the more important becomes the acquisition of the personal ecological culture. It is noted that high ecological consciousness is characteristic of people with high educational level (Kuckartz & Rheingans-Heintze, 2006).

The development of the ecological culture is based upon an integral approach. The integral approach suggests, that the development area for the ecological education is not limited to teaching of the professional environmentalists and to environmental classes to other professions. Rather, it includes a vast area of principles, forms and methods applicable in that direction. Ecological culture today is understood as the highest display of the personal ecological education and personal ecological competencies (Ignatov, 2011). Ecological culture is formed as an integral part of three elements: ecological consciousness, moral and practical attitude (Asafova, 2012). Positive influence of ecological education on the favorable relation of students to environment is shown (Hassan, Juahir & Jamaludin, 2009). The awareness, values, the relations are the internal factors exerting impact on pro-ecological behavior (Kollmus & Agyeman, 2002). Ecological culture manifests itself as an ecological position in its attitude toward the world. Ecological position is a system of value points, which define personal activity and behavior in the area of environment, as well as in the area of culture in general.

Education that leads to comprehension of ecological values and establishment of the personal position in regard to the environmental situation demands from a teacher to have personal ecological culture. Therefore, environmental determination as a manifestation of the ecological culture of a teacher is a necessary condition for development of the ecological culture of a student.

Ecological orientation expects from a teacher to possess a personal system of interests, needs, motives in positioning and implementation of the ecological culture. It is imperative for the students both to study the environment related problems and to practice moral decision making toward the world.

The teachers with high level of ecological culture are able, in a course of educational events, to help students form science based beliefs, that necessitate “Society – Nature” cooperation, as well as nature management skills. Environmentally oriented education helps to build active personal position of the future professional, engraving understanding of the personal responsibility for the professional decision making.

The understanding of the end results of the ecological education has notably shifted in the past times. Initial idea, that humans must transform nature is gone. The new idea teaches humans to form a new ecological consciousness, where humans rather learn to cooperate with nature as a part of it.

Methodological Framework

The research objective consisted in clarification of a role of a communicative event in pedagogical dialogue and creation of the model allowing to develop ecological culture of participants of educational process.

Creation of the transcommunicative model of the ecological culture is based upon logical and theoretical analysis and educational modeling in research of communicative models (Zeleeva, 2010, 2011, 2013) and communicative event in the context of the educational process (Zeleeva, 2012).

When building the model of the development of the ecological culture, we relied on the data obtained from studying the ecological orientation of the teachers and their attitude toward the environmentally oriented education (Asafova, 2015). Also, we considered attitude of the students toward nature and their ecological beliefs (Asafova, 2015), as well as the details of ecological behavior of the students (Asafova, 2015). Desalination of the ecological beliefs of the students and their attitude toward nature is based upon the questionnaire (Neumann, 1999). 103 teachers and 257 students took part in the research at the Kazan Federal University from 2007 to 2014.

Results

University and school teachers have been questioned in regard to their ecological determination. The end results have shown, that teachers realize the need for the ecological culture of the teacher. All of the respondents proved that fact (100%). Only one third of the teachers believe, that their environment related knowledge is sufficient for their professional work and everyday life. At the same time, the increasing tendency for environmentally oriented teaching reveals the following numbers: university teachers – up to 25 %, and school teachers – to 50 % (Asafova, 2015). The Table 1 below illustrates the answers of the university and school teachers.

Table 1. Environmental orientation of the teachers (% of all the questioned)

<i>Questions of the questionnaire</i>	<i>Answers Yes/No</i>
Do You adhere to the ecological based behavior when You are outdoors?	82/18
Do You openly assert Your beliefs in case of environmental disaster?	78/22
Do You clarify to the people around You, if need be, the dangers of “environmentally unsafe” behavior, when environmental statutes are breached?	73/27
Are You a founder or a participant of the ecological education and ecological activities?	13/56 31-seldom

Analysis of the results suggests that teachers of higher and secondary educational institutions generally manifest their beliefs in ecological behavior, but they are not often the participants and organizers of ecological events. At the same time, ecological activity is a "bearing structure" for ecological culture. It contributes to the development of motivation, the emergence of new incentives to

deepen the ecological knowledge. Ecological activities and behavior contribute to the formation of active life position of the individual, to the increased responsibility, conscious attitude to reality.

The questionnaires and rapid survey of students at Kazan University were conducted by one of the authors of this paper in order to study the ecological beliefs of students and their attitude toward the environment. The results obtained have shown that the majority of respondents have an opinion, which points out to the need for respect for natural environment. Additionally, many students seem to believe that there is a need to "do more for the environment." At the same time, the activity aspect of the ecological culture is not sufficiently developed, and the majority (70%) of students show ecological behavior only "when additional significant efforts are made", and such behavior is not the everyday rule of life. The survey results are presented in Table 2.

Table 2. Description of ecological beliefs of the students and their attitude toward nature

Questions of the questionnaire (Neumann, 1999)	Answer	Number of students (%)
<i>Environmental beliefs</i>		
I am anxious, when I think about the environmental conditions, in which the future generation is likely to exist	Yes	70
	Partially	25
	No	5
In our times, most of the people are not conscious in their environmental behavior	Yes	82
	Partially	17
	No	1
<i>Attitude toward nature</i>		
Regardless others, I try as much as possible, to treat the environment in a right way	Yes	68
	Partially	28
	No	4
Every person must by all means do more for the environment	Yes	81
	Partially	10
	No	9
My behavior toward the environment is conscious, when I exert substantial efforts	Yes	25
	Partially	45
	No	30

Upon having been asked the question "How do You personally affect the environment on the campus", 73 % of respondents used the phrase "do not litter." Among these students were those, who generally assess the environmental situation on the university campus as a positive one (Table 3). Neutral or negative assessment of the environment matched with a significant reduction (20-25%) in the number of students who follow the rules of environmental behavior. Among them there were no such students who were involved in environmental clean-ups and who would show their environmental activism. In the group I of respondents environmental actions of participants was also very low (3%) (Table 3).

In analyzing the results of the study, we found the following contradictions:

- contradiction between understanding on the part of teachers of the importance of ecological culture of students and the way teachers assess the

professional competence in this area as not being sufficient. Also, it contradicts the unreadiness to start training activities focused on the development of ecological culture of students;

- contradiction between the recognition of the importance of ecological behavior of the students and the insignificance of their efforts to exhibit the behavior of environmental responsibility.

These contradictions reaffirm the increasing of importance of ecological culture for the participants of the educational process. For the solution of this task it is necessary to organize internal and external conditions which can be implemented at several levels. This, in our opinion, requires more interaction between teachers (engaged in educational support and maintenance) and the students during the training, for example, in scientific management and in the implementation of joint projects, the organization of debates and during environmental activities.

Table 3. Details of the environmental behavior of the students

	Assessment of the environmental situation (%)		
	«Positive» I	«Neutral» II	«Negative» III
<i>Behavioral options</i>			
• no littering	73	53	47
• environmental clean-ups	3	0	0
<i>Suggestions from the students</i>			
• environmental clean-ups	27	18	25
• environmental education	4	30	40
• sanctioning	20	12	23

Solution of the problem of developing the ecological culture can occur at several levels:

The level of development of ecological culture for the teachers:

- internal conditions: ecological orientation (needs, motives, interests), ecological credo (values, beliefs ...), ecological position (environmental behavior, environmental responsibility);

- external conditions: the public interest in environmental shift in the training of teachers and in the education in general; inclusion of environmental issues in the training of teachers, actualization of environmentally oriented value system.

The level of development of ecological culture of students:

- internal conditions: ecological orientation (needs, motives, interests), ecological credo (values, beliefs ...), ecological position (environmental behavior, environmental responsibility);

- external conditions: teachers with high level of ecological culture; the ability and readiness of the teacher to organize the educational conditions based

on pedagogical communication as valuable exchange and cooperation in the development of ecological culture of students.

The internal conditions of ecological culture of students are formed on the basis of resolving the following educational problems:

1. The development of the feeling of belonging to nature and society combined with increasing responsibility for them.
2. Support for creative development of future graduates through the harmony of common cultural, social, moral and professional development.
3. The inclusion of diverse activities productively meaningful for the person.

External conditions of ecological culture of the student are formed on the basis of educational communications, which ensure solution of the following tasks:

1. The implementation of the exchange of scientific experience and practical activities aimed at increasing the activity and independence of students.
2. The provision of advisory services to maintain a high cognitive interest in environmental issues and the development of environmental orientation.
3. Stimulating creativity in scientific research and practice;
4. Involvement in the implementation of collaborative projects based on co-creation.

In order to address the detected contradictions and to set up the underlined conditions, it is important to build a model of development of environmental culture that takes into account the continuity of the development of environmental culture from teacher to student (Figure 1).

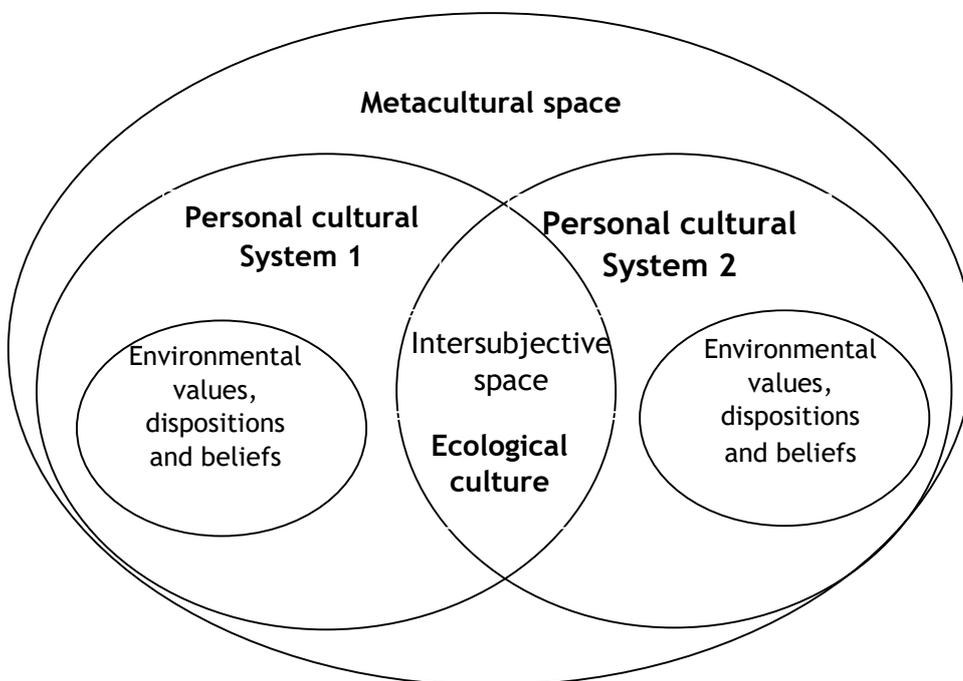


Figure 1. Transcommunicative model presented as a communicative event.

The model of development of ecological culture of the student involves an event organizing of the educational space in which all participants of the process build a general view of things and actions related to them (Zeleeva 2010, 2012, 2013). Educational communicative event can be organized in a particular background, which in turn will affect the interpretation of the event, the behavior of its members.

If the contact of communicants occurs at the level of the transpersonal meanings, this communication can be considered as a transcommunication (Kabrin, 2005). Transcommunication includes intersubjective (transpersonal) and intrapersonal (innerpersonal level). This communicative model manifests in such a way, so that humans are sending and receiving the information at the same time, the thoughts and feelings being clothed in the message, and the brain acts as a channel for the processing of these thoughts and feelings. Feedback from others supplements the information as the product of intrapersonal processes or rejects it. Considering communication as intrapersonal process, we are dealing primarily with the level of consciousness of this inner world. It is an intrapersonal process, as a reflection of the psychic reality of the individual transpersonal meanings and values of intersubjective communication, that becomes the basis for the development of both ecological culture and the whole cultural system of the individual as a whole.

It should also be remembered that, although the communicative event transforms the individual, and impels personality to action, the communicative event is the transpersonal phenomenon, metaspaces, in which subjectivity is not to be referred only to the communicants, but also to the meaning of communication. Thus, the communicative event can be regarded as a chance manifestation of the transcommunicative model (Figure 1). The model of communication shows that for the actualization and development of ecological culture of students in the intrapersonal system there must be present ecological culture of the teacher, manifesting in all aspects of interpersonal communication. Analysis of intrapersonal communicative system of the teacher and students unfolds the fact, that the individual communicative system is multidimensional and that intrapersonal context directly affects the nature and importance of the event for the development of the communicative aspects of personal communicative culture.

Discussions

Ecological culture is manifested in educational communication. For the analysis of the communicative event in the context of pedagogical communication it is important to make a communicative analysis of personality. Such an analysis allows to find out how different aspects of ecological and cultural systems of communicants come together.

Personal communicative system consists of a set of components that enhance communicative event: they come into contact, they relate and, as a result, they mutually repel each other or mutually complement. Personal communicative system is made of images from different cultural contexts, where the following communications are observed: interpersonal, role-playing, corporate, group, cross-cultural and etc.

The main function of communication systems in education are the motivation for actions and activities, the stimulation of self-development. There are six functions of communication and communicative act: emotive (direct attitude to the situation is expressed); conative (to attract attention); referentive (focus on the content of what is spoken); poetic/holiday (message for the sake of the message); phatic (used to maintain communication); metacommunicative (description of the communication process) (Kashkin, 2007). In turn, motivation of the person to actions and activity leans on system of values by which he is guided, defining personal and socially significant meanings and the purposes of this activity.

The formation of the personal value system is a very difficult process. Values, attitudes and personal position of the individual are not transmitted by words, and are not implanted directly. These qualities develop in real life situations transmitting personal meaning of human development and coincide with universal values. The basic mechanism of this process is the personal importance of the event. Experience, on the other hand, is an important psychological mechanism to transmit social values, while the recipients are determining for themselves its meaning.

The attributes of the communicative act as an educational communicative events are:

- higher personal significance and the opening of new personal meanings for all its participants;
- an interaction becomes intersubjective (communication flows at the level of the higher sense);
- the realization of the communication participants of transcendental (transpersonal) goals.

Ecological values can be represented in each component of the communicative system, and environmental beliefs affect the way how the composition of intrapersonal aspects of communicants is built.

Acceptance of metacultural level of ecological culture as an objective fact gives a new understanding of the mechanisms of educational communication. Now its main objective is not to introduce from outside some environmentally relevant information, but updating and expansion of the existing potential of the ecological culture of the student. In the first case, the communicative act inevitably makes an object from the person. In a communicative event, interpersonal space, which is also a transpersonal space, carries creative potential of the collaborative meaning-making and, consequently, cultural creativity. Thus, the ecological culture of the teacher is not a frozen education: it evolves with the development of ecological culture of students.

Conclusion

So, the conditions for design of the communicative events and prediction of its effectiveness in environmentally oriented education are:

- systematic and multi-dimensional approach to the communicative system of the individual and educational communication;

- consideration of the communicative event as a result of mutual communicative act aimed at the personal development of both students and teachers;

- understanding that educational communication actualizes the various aspects of multidimensional communicative system of both the student and the teacher and the characteristics of correlation and contacting of the various aspects of these systems affect the effectiveness of educational support of development of ecological culture;

- in the formulation of the problem of educational support of the development of ecological culture of students the emphasis should be done to the analysis of intrapersonal and interpersonal communicative conditions of the event; the search for perfection of forms and methods of support should be considered secondary to the conditions.

Considering transcommunicative model of the educational communication, we have proved that the actualization of ecological culture (values, orientation, beliefs) of teachers, which is realized in teacher education, is the basis for the actualization and development of the personal ecological culture of the student. Communicative basis of academic interaction can be represented by different communicative models; however, the transcommunication described by V. I. Kabrin (2005) creates the conditions for the communicative event.

Nowadays communicative event in the philosophical literature is seen as having the potential for social and cultural changes. For the practical environmental education, the communicative event can be a measure of efficiency of an educational communicative act in the development of ecological culture. Positioning the communicative events in the spotlight gives teachers the opportunity to enhance educational practice of a strong communicative potential for the personal development. In addition, it implies the presence of ecological culture of the teacher. Theoretical and methodological understanding of the communicative event can be used as the basis for the organization of environmentally oriented education.

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References

Asafova, E. V. (2012) The ecological culture of pedagogy majors and its development within a university's educational space. *Obrazovanie I samorazvitie*, 5 (33), 100-106.

- Asafova, E. V. (2013). Environmental and ethical values in high school education. *Education and Self-Development*, 4 (38), 36-42.
- Asafova, E. V. (2015) The Development of Ecological Culture of Students in the Design and Creative Activity. *Procedia - Social and Behavioral Sciences*, 191, 2329 – 2333.
- Asafova, E.V. (2015). *The basis of ecological culture of modern and future teachers*. Kazan: Kazan University. 322p.
- Hassan, A., Juahir H., Jamaludin N.S. (2009). The level on environmental awareness among students to fulfill the aspiration on national Philosophy of Education. *American Journal of Scientific Research*, 5, 50-58.
- Ignatov, S. B. (2011). Environmental expertise in the context of education for sustainable development. *Obrazovanie I nauka*, 1(80), 22-32.
- Kabrin, V. I. (2005). Communicative world and trans-communicative potential of a person's life: theory, methods, research. Moscow: Smisl. 248p.
- Kashkin, V. B. (2007) Fundamentals of Communication Theory. Moscow: AST: Vostok-Zapad. 256p.
- Kollmus A. & Agyeman J. (2002) Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Education Research*. 8 (3), 239-260.
- Kuckartz, U. & Rheingans-Heintze A. (2006) *Trends im Umweltbewusstsein: Umweltgerechtigkeit, Lebensqualitaet and persoenliches Engagement*. Wiesbaden: VS Verlag. 178p.
- Neumann, H. (1999) Bewusstsein und Verhalten. *Politik und Unterricht*, 4, 25-26.
- Niyazova, A.A.. (2012). Establishment of ecological culture of the student as part of professional education. *Fundamental Research. Pedagogical Sciences*, 9, 630-634.
- Zeleeva, V. P. (2010). *Features of the organization of the space of pedagogical communication in the conditions of the university educational environment*. Sophia: «Sv.Kl.Ohridski», 375 p.
- Zeleeva, V. P. (2011) Event-based organization of communication space of pedagogical interaction in university. *Asotsiatsiya na profesori ot slavyanskite strani (APSS)*, 166-169.
- Zeleeva, V. P. (2012) Communicative event and its analysis within the educational space of higher education. *Obrazovanie I samorazvitie*, 2(30), 30-35.
- Zeleeva, V. P. (2013) Pedagogical communicology: the problem of formation of a new scientific direction in the system of pedagogical sciences. *Obrazovanie I samorazvitie*, 4(38), 126-130.