

Diagnostics of ecological consciousness of metallurgical students



Ivan Ivanov

*PhD in Technical Sciences
National metallurgical academy of Ukraine,
Dnipropetrovsk, Ukraine
E-mail: ivan_ivanov48@mail.ru*



Elena Matukhno

*PhD in Technical Sciences
National metallurgical academy of Ukraine,
Dnipropetrovsk
E-mail: mhv_mhv@mail.ru*



Anzhelika Mieshkova

*National metallurgical academy of Ukraine,
Dnipropetrovsk, Ukraine
E-mail: meshkova_AG@ukr.net*



Marina Sukhareva

*National metallurgical academy of Ukraine,
Dnipropetrovsk, Ukraine
E-mail: mvsv23@yandex.ua*

Abstract

The diagnostics of type of ecological consciousness of students of National metallurgical academy of Ukraine by the M. Rokhich's method is presented. It is established that surveyed students have ecological consciousness of anthropocentric type.

Key words: METALLURGY, ECOLOGY, STUDENTS, EDUCATION, ECOLOGICAL CONSCIOUSNESS, VALUE PARADIGM

The purpose of program of "Sustainable ecologically safe industrial development" adopted by the UN is the fulfillment of present and future generations requirements by means of industrial development in case of preservation of ecological systems stability. The essential condition of this objective fulfillment besides creation of effective system of ecological control and creation of ecologically sound economy is formation of ecological consciousness of people [1]. High environmental consciousness of staff is one of conditions for certification of metallurgical enterprises on compliance to ISO 14000 standards system, which is essential condition of marketing of production in the international markets [2]. Therefore, there are requirements for training of specialists capable of carrying out professional activity taking into account ecological expediency of decisions. It is especially relevant for metallurgical branch with its numerous and large-scale environmental problems.

Future engineer must have knowledge of ecological danger of certain production, ecologically reasonable technical solutions in the field and have skills of their application. Rational and effective use of natural resources, rates of scientific and technical, social-economic and cultural progress of the country depend on his professional integrity to a large extent.

The high school plays significant role in formation of the identity of the environmentally-oriented expert capable to solve problems of a sustainable development. In high school, his ecological consciousness, ecological culture and professional integrity are formed; experience in the solution of problems of environment quality increasing by improvement of technological processes, increasing of efficiency of sewage purification and gas emissions, recycling of solid waste [3] is obtained.

Therefore, the evaluation of ecoconsciousness type of metallurgical students is objective of this research.

The research consists in determination of priority for students with various universal human values including nature. M. Rokhich's technique was used for diagnostics of system structure of students' valuable orientations [4]. It represents ranking of importance

of values from two lists – terminal and instrumental. There are 18 items in each list. Terminal values are the purposes making the vital sense for the person, for example, health, interesting work, wellbeing. Instrumental values are means for achievement of these purposes, for example, responsibility, honesty, rationalism, courage, etc. The rank for the nature characterizes type of ecological consciousness.

160 students took part in questioning, among them there are 99 ecologists and 61 students of other specialties – electrometallurgists and mechanics. 102 female and 58 male students have been interrogated. Histograms of averaged ranks of these values are given in Figures 1 and 2.

Researches have shown that in general the evaluation of the values importance by different groups of students coincides or is close to each other. Considerable difference in views, for example, on love or responsiveness, is possible to explain with different group members: in groups of ecologists girls predominate, and there are mainly female students in groups of electrometallurgists and mechanics.

In system of valuable orientations of students, health, family happiness, interesting work are the basic values, and public recognition and happiness of others are insignificant. The most important values for goals achievement are politeness, responsibility and honesty; the least important values are uncompromising attitude to shortcomings, high requirements and rationalism.

Among instrumental values, students consider politeness and exactitude, responsibility and honesty as basic values, and uncompromising attitude to shortcomings and strong will, high requirements and rationalism as insignificant ones. Among terminal values, health, family happiness, interesting work are the main. The place of public recognition and social status among insignificant values is indicative of the low level of ambitions of our students. The last place, which is taken by happiness of others, reflects dehumanization of modern society.

If we divide the values into the primary taken first 6 places, secondary - from 7 to 12 places, and the others which are insignificant, students refer the nature

to the second group (ecologists to the 8th, and engineering specialties to the 12th place). Such result de-

monstrates that the ecological consciousness of anthropocentric type is inherent in interrogated students.

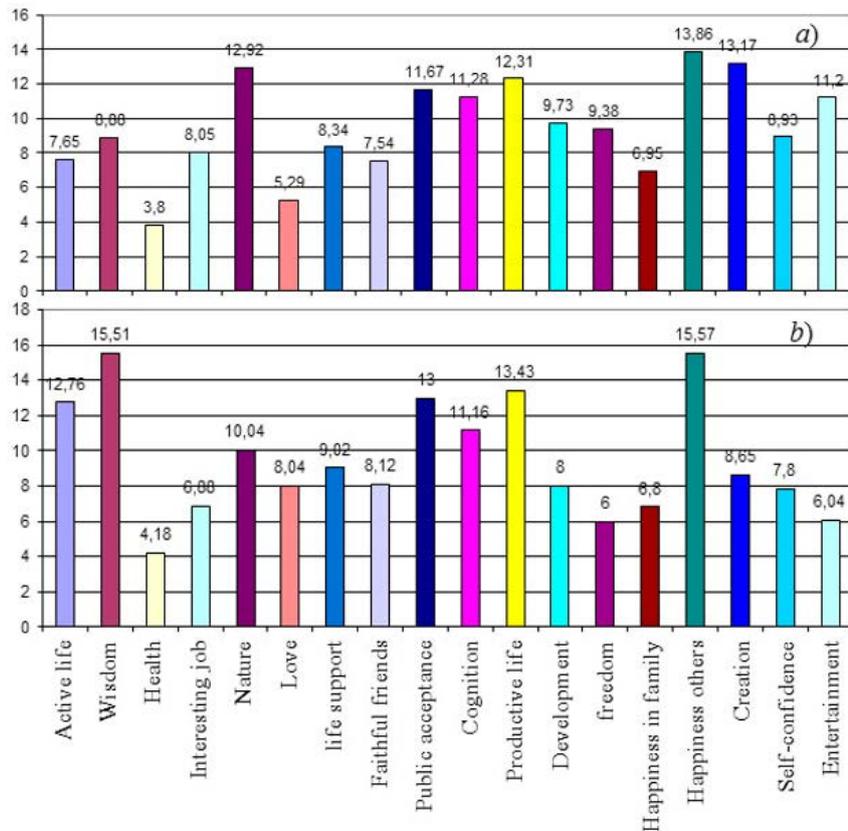


Figure 1. Averaged rank of terminal values of students ecologists (a) and students of technical specialties (b)

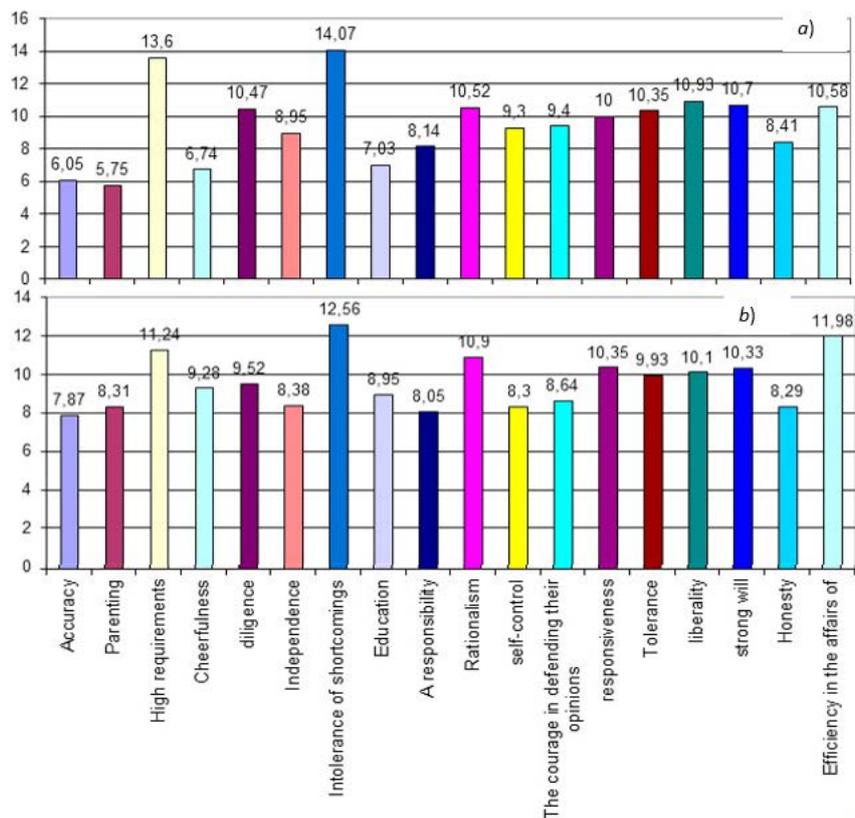


Figure 2. Averaged rank of instrumental values of students ecologists (a) and students of technical specialties (b)

Conclusions

Researches have shown that students refer the nature to secondary values that is connected with prevalence of ecological outlook of anthropocentric type in modern society.

As ecological education is a way of formation of ecological consciousness, education primary target is its ecologization. In turn, ecological education and culture will allow creating ecological consciousness of ecocentric type, which consists in harmonious development of human and nature as elements of integrated system.

Studying of dynamics of ecological culture level of students in the course of ecologization in higher education institution can become the purpose of further researches.

References

1. Mangasaryan V.N. *Ekologicheskaya kul'tura obshchestva*. [Ecological culture of society]. St. Petersburg, Baltic State Technical University, 2009. 112 p.
2. Anufriev D.V. *Ekologicheskiy menedzhment predpriyatiy*. [Environmental management of enterprises]. Moscow, Vysshee obrazovanie, 2009. 300 p.
3. Bobylev V.P., Ivanov I.I., Kravtsov S.V. (2011) Methodological approaches and principles of ecological education of metallurgical students. *Collection of papers of VIII Ukrainian scientific-practical conference "Environmental protection of industrial regions as condition for the sustainable development of Ukraine"*, 15 December 2011. Zaporizhzhia, Zaporizhzhia State Engineering Academy, p.p. 245 – 248
4. Leont'yev D.A. *Metodika izucheniya tsennostnykh orientatsiy*. [Methods of study of value orientations]. Moscow, Smysl, 1992. 17 p.

The logo for METAL JOURNAL is displayed in a stylized, 3D-effect font. The letters are white with a metallic sheen and are set against a dark brown, gradient background. The word 'METAL' is positioned above 'JOURNAL'.

www.metaljournal.com.ua