Asesorías y Tutorías para la Investigación Científica en la Educación Puig-Salabarría S.C.
José María Pino Suárez 400-2 esq a Lerdo de Tejada. Toluca, Estado de México. 7223898475
RFC: ATI120618V12

Revista Dilemas Contemporáneos: Educación, Política y Valores.
http://www.dilemascontemporaneoseducacionpoliticayvalores.com/
Año: VI Número: Edición Especial Artículo no.:8 Período: Diciembre 2018.

TÍTULO: Investigación de la actitud de los estudiantes de primaria a las tecnologías digitales modernas por medio de metáforas de zoológico.

AUTORES:

1. Flera G. Mukhametzyanova.
2. Oksana A. Zherebnenko.
3. Ludmilla B. Kusnetsova.
4. Elena A. Venidiktova.
5. Ruslan V. Zabirov.

RESUMEN: El artículo se dedica al análisis de la actitud de los escolares respecto a las modernas tecnologías digitales a través de metáforas de zoológicos, lo que hizo posible resaltar que los alumnos más jóvenes en su mayoría asocian Internet con animales salvajes, depredadores y fuertes; por ejemplo, un rey de bestias en su hábitat (tigre, oso, león). Los niños más pequeños en la escuela asocian a una computadora con mascotas (gato, perro) como algo conocido, familiar, comprensible, amigable y que también trae alegría. Los hallazgos del estudio muestran que los animales asociados con las tecnologías digitales son más consistentes con las ideas de los niños sobre los animales ideales y los animales más similares a ellos.

PALABRAS CLAVES: tecnologías digitales modernas, escuela primaria, metáfora del zoológico, autoimagen.

TITLE: Research about the attitude of Primary School students to modern digital technologies by means of Zoo Metaphors.

AUTHORS:

1. Flera G. Mukhametzyanova.
2. Oksana A. Zherebnenko.
3. Ludmilla B. Kusnetsova.
4. Elena A. Venidiktova.
5. Ruslan V. Zabirov.

ABSTRACT: The article is devoted to the analysis of the attitude of schoolchildren regarding modern digital technologies through zoo metaphors, which made it possible to highlight that younger students mostly associate the Internet with wild, predatory and strong animals; for example, a king of beasts in their habitat (tiger, bear, lion). Younger children at school associate a computer with pets (cat, dog) as something familiar, understandable, friendly and that also brings joy. The findings of the study show that animals associated with digital technologies are more consistent with children's ideas about ideal animals and animals more similar to them.

KEY WORDS: modern digital technologies, primary school, zoo metaphor, self-image.

INTRODUCTION.

Of particular relevance now is the problem of enthusiasm for computer games, the Internet, dependence on mobile devices in a child-teenage environment, which was studied in detail by such modern scientists as Garipov L.F., Kuznetsova L.B., Maliy D., Novikova A. and others. [1; 2; 3; 4]. On the one hand, this is a logical consequence of such a progressive factor as the rapid development of modern information technologies.

The development of digital technologies has made them a generation that has grown up in a digital environment: almost all information is obtained by them from the Internet.

According to Pakhomova V.G., the informational digital environment and the world of technical devices are for them one of the most significant sources of sociocultural development, they act as a tool mediating the formation of their higher mental processes [5]. On the other hand, excessive immersion in the digital information environment can lead to negative consequences. Among them, modern authors, such as Sorokoumova EA, Chekulay I.V., and others, consider the manifestation of the phenomenon of "addiction", which adversely affects their physical and mental health, to be the most significant [6, 7]: immersion into the virtual space (in the process of communication, play activity, cognition, etc.) is greater than in real life, the impoverishment of the children's imagination since children receive all the images in a completed form (bright, colorful, detailed), etc.

DEVELOPMENT.

Despite the significance and relevance of the problem on the excessive involvement of modern children in the information and computer environment, starting from a fairly young age, most of the current research on this problem has been carried out on samples of adolescents and adults.

The purpose of the study is the study of the attitude of children of primary school age to modern digital technologies.

Methods.

Based on the specifics of the psychological characteristics of this age group, as well as the need to identify the attitude of younger pupils to the modern digital environment, not only at a conscious, but also at an unconscious level, we gave preference to projective methods when developing a research program. We studied the attitude of younger schoolchildren to modern technical means of communication on a metaphorical level.

The essence of a metaphor lies in the mechanism of associative identification, which makes it possible to correlate the phenomena of different subject areas by means of the nominative act. In the words of S.L. Rubinstein, "the formation of an association is essentially a process in which one phenomenon acquires the meaning of a signal from another phenomenon".

As noted by foreign researchers [8, 9, 10], one of the most famous models of metaphorical nomination is the zoomorphic metaphor, the cognitive source of which is the image of an animal transferred to humans.

In our study, we performed a research of the attitude of younger pupils to modern technical means of communication (computer, mobile phone and the Internet) at the metaphorical level: by analyzing what representatives of the animal world they associate with these phenomena**.** To do this, we identified three more categories of assessment by means of a zoo metaphor: an ideal animal (to determine the characteristics of the "idealized self" image of a child), an animal being an anti-ideal (to define "shadow", unconscious and / or not accepted parts of a personality), and an animal that most "looks like me" (to define the characteristics of the "reality-ego" image of a child).

In the course of the study, the tested children were asked to determine which animals they associate with the internet, a computer and a mobile phone, as well as determine their ideal animal, the animal — the anti-ideal, and the animal that mostly resembles them.

The study was conducted on the basis of the Municipal Educational Establishment Oktyabrskaya Secondary School of the Belgorod District of the Belgorod Region named after Hero of Russia Y.A. Chumak of the Russian Federation**.** Pupils of the 3rd grade took part in it. The total number of subjects was 30 people.

Results and Discussion.

Let us turn to the analysis of the results. At the first stage, we analyzed the associations that pupils have with the word "Internet" by means of zoo metaphors. The pupils were asked to answer the question: Imagine if the Internet were a living thing, what kind of animal would it be?

It can be noted that the most frequent in the sample are such animals as tiger (20%), bear (19%), and lion (16%). Interpreting the data, we can conclude that the younger schoolchildren associate the Internet with wild, predatory, and strong animals; one can say "the king of beasts" in their place of habitat. Emotionally, such associations may indicate feelings such as respect, interest (the feeling of

the unknown), admiration, fear, such an attitude as recognition of authority and willingness to submit to authority. Associations with birds are represented to a lesser extent: owl, parrot, sparrow (9% each), stork, swallow (4%). In our opinion, this can express such characteristics in relation to younger pupils to the Internet, such as the source of wisdom (owl), the ability to easily and quickly move and obtain information.

We analyzed associations with representatives of the animal world, which occur in pupils with the word "computer". The pupils were asked to answer the question “Imagine if your computer was a living thing, what kind of animal would it be?”

Analyzing the data obtained, it should be noted that in the sample the most frequent turned out to be such animals as a cat (35%), and a dog (34%). These animals "lead" among other associations with a large margin, in connection with which the attitude of younger schoolchildren to such a phenomenon as "computer" can be characterized as closer to unambiguous compared to the relation to the previously considered concept "Internet", while other animals received the smallest results: a bear - 9%; a lion - 4%; a sparrow - 9%; a panther - 4%. Thus, the computer is associated at younger pupils, in the first place, with something well-known, familiar, understandable, as well as bringing joy.

Next, we analyzed the associations that pupils have with the word “mobile phone”. The pupils were asked to answer the question “Imagine if a mobile phone was a living thing, what kind of animal would it be?”

It was found that the most frequent turned out to be the following animals in the sample: a parrot (20%), a dog (19%), and a cat (14%). It should be noted that the spread of associations on the word-incentive “mobile phone” is quite large. A rather large percentage of junior schoolchildren associate a mobile phone with a dog and a cat. At the same time, unlike a computer, an animal such as a parrot leads in the concept of “mobile phone”. A parrot is probably the most common pet bird with a unique ability to repeat human speech, having a bright, colorful, eye-catching plumage. In our opinion, this reflects such characteristics of the attitude of younger pupils to a mobile phone as the

possibility of verbal communication, as well as the ability to stand out, to attract somebody's attention. The association with birds, on the one hand, may reflect such a function of the phone as the ability to talk ("tweet"), and on the other hand, the flying birds symbolize radio waves transmitting a signal.

At the second stage of our study, we compared the zoo metaphors used by younger pupils to characterize modern digital technologies (Internet, computer, and mobile phone) and the zoo metaphors of children in relation to themselves.

We identified the following categories of assessment by means of a zoo metaphor: an ideal animal (reflecting the image of the "idealized self" superego of a child), an animal — antiideal (reflecting "shadow", unconscious and / or unacceptable qualities in the child), and an animal which is most similar to a children (reflecting the image of "reality-ego" of a child). We proceeded from the assumption that the analysis of the attitude of children to modern technical means of communication through the prism of such evaluative categories as "ideal", "antiideal" will allow to deepen the idea of their attitude to the objects under study.

Analyzing the data obtained, the following main trends can be identified:

1) Such an animal as a cat leads with a large margin from others (57%) for the image of an idealized self, superego. Comparing the data obtained with the results of the study on the attitude of younger schoolchildren to modern technical means of communication, it can be noted that the image of a cat (along with the image of a dog) is the most common zoo metaphor to the concept of "computer". Thus, the computer in the mind of the younger pupil contains elements of the idea of an ideal, of what one wants to strive for, of what one wants to learn. Thus, at the level of a zoo metaphor, the idea of a computer is closest to the idea of an ideal (Idealized self, superego).

2) Zoo metaphoric image of negative qualities, opposite to the ideal is more heterogeneous, and in general, is less unequivocal. It contains such animals as: a toad (20%), an elephant (20%), a spider (16%), a chicken (15%), a monkey (9%), etc.

Comparing the obtained data on the “shadow” qualities of a personality that are not accepted or unrecognizable by the child with the data on the attitude of younger schoolchildren to modern technical means of communication, it can be noted that these animals are practically absent in the zoo metaphors for the concept of the internet, computer and mobile phone. Thus, technical means of communication in the minds of younger pupils are filled with positive characteristics and practically do not contain any negative, unacceptable qualities.

3) The image of reality-ego is also quite heterogeneous. It contains such zoo metaphors as a monkey (35%), a tiger (19%), a cat (14%), a parrot (9%), a snake (9%), etc. It can be noted that it, among others, presents metaphorical images of animals that occur in the description of modern technical means of communication. In particular, for example, “tiger” (20%) is one of the most frequently encountered associations to the concept of “Internet”, “cat” (35%) - to the concept of “computer” (which we have already mentioned above), “parrot” (20%) - to the concept of "mobile phone". It can be concluded, that to a certain extent, elements of all three modern technical means of communication that we consider, are represented in the image of “reality-ego” of junior schoolchildren.

Thus, the comparison of animals that younger pupils chose to characterize given objects (internet, computer, mobile phone) with those animals that they chose according to the criteria: “ideal animal”, “animal - anti-ideal” and “animal most similar to me” has revealed:

a) The image of “idealized self” is most closely related to the image of “computer”, since each of them most represents such a zoo-metaphor as a cat, reflecting such characteristics as independence, confidence, orientation to their own needs, freedom to choose action.

b) Modern digital technologies in the minds of younger pupils are filled with positive characteristics and practically do not contain any negative, unacceptable qualities.

c) The image of “reality-ego” of a younger pupil, to a certain extent, involves the elements of all three modern technical means of communication considered by us.

In summary, our analysis of the attitude of younger schoolchildren to modern digital technologies through zoo metaphor made it possible to single out the following:

1. The internet is more associated at younger schoolchildren with wild, predatory, strong animals; one can say, “the king of beasts” in their habitat (tiger, bear, and lion). Emotionally, such associations reflect feelings of respect, admiration, interest in the unknown, recognition of authority.
2. The computer is most associated at younger school children with pets (cat, dog), as with something well-known, familiar, understandable, friendly, and also bringing joy (“pet”).
3. A mobile phone at the level of a zoo metaphor, as well as a “computer”, is mostly represented by pets (parrot, cat, and dog). In our opinion, in addition to the features highlighted earlier, it also reflects such characteristics of the attitude of younger pupils to a mobile phone, such as the possibility of verbal communication, as well as the ability to stand out, to attract attention.
4. Modern digital technologies correspond to a greater extent to such images in the self-consciousness of the younger schoolchild as idealized self, or superego, and reality-ego and are practically not represented at the level of “shadow” qualities which children do not accept in themselves. This connection is most vividly traced between the idealized self-image and the computer, and in the zoo metaphors to which the association with a cat is most represented.

CONCLUSIONS.

The problem of excessive immersion of a person in the digital information environment is becoming more and more relevant today, and its age aspect, which has not been adequately explored, especially in relation to early ages, is of particular importance. One of the promising areas of research of this problem is the approach to studying it at the metaphorical level of the child’s consciousness, and in particular, through the zoo metaphors.

Acknowledgements.

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

BIBLIOGRAPHIC REFERENCES.

[1] Garipov L.F., Utemov V.V. (2013). Motivation for informative computer games at younger pupils. - Modern problems of science and education, - № 3. - P. 242.

[2] Zherebnenko O.A., Kuznetsova L.B. (2015). Features of the attitude of modern younger pupils to computer games // Kazan Pedagogical Journal. No. 4-2 (111). p. 393-399.

[3] Maliy D., Kulikova T. (2012). The impact of computer games on school performance. Experimental research experience. - Saarbrucken: LAP LAMBERT Academic Publishing, 2012. 80 p.

[4] Novikova A.A. (2009). The role of computer games in the psychological development of adolescents. - Actual problems of the humanities and natural sciences, - V. 2.No. 7.– P. 212-214.

[5] Pakhomova V.G. (2017). Psychological determinants of enthusiasm for computer games in the early school years. Psychological aspects of the influence of virtual reality gaming on the formation of the “Ego” image at younger schoolchildren.// Psychological Science and Education, - V.22 - № 5. - P. 49-56.

[6] Sorokoumova E.A. Nikolaeva E.S. (2015). Generation Z in the process of self-knowledge // Social computing: basics, development technologies, social and humanitarian effects: Materials of the Fourth International Scientific and Practical Conference / Editor-in-Chief E.V. Brodovskaya. M., p. 196–202.

[7] Chekulay I.V., Prokhorova O.N. (2016). A zoo metaphor as a fragment of the picture of the world in East Slavic languages // Problems of linguistics and linguodidactics. International collection of scientific articles. Belgorod, p.164-177.

[8] Zheng Xiang, Vincent P. Magnini, Daniel R. Fesenmaier (2015). Information technology and consumer behavior in travel and tourism: Insights from travel planning using the internet // Journal of Retailing and Consumer Services, Volume 22, January 2015, pp. 244-249

[9] Pierre J. Benckendorff, Pauline J, Sheldon, Daniel R. Fesenmaier (2014). Tourism Information Technology // The University of Queensland, Australia; University of Hawaii, USA; University of Florida, USA; 2nd Edition, Gutenberg Press, Mailta, p.351.

[10] Kelly MacKay, Christine Vogt (2012). Information technology in everyday and vacation contexts // Annals of Tourism Research, Volume 39, Issue 3, July 2012, P. 1380-1401

DATA OF THE AUTHORS.

1. Flera G. Mukhametzyanova. Kazan Federal University. Email: florans955@mail.ru

2. Oksana A. Zherebnenko . Belgorod State National Research University. Email: global@prescopus.com

3. Ludmilla B. Kusnetsova. Belgorod State National Research University. Email: info@prescopus.com

4. Elena A. Venidiktova. Kazan Federal University. Email: info@ores.su

5. Ruslan V. Zabirov. Institute of Pedagogy, Psychology and Social Problems (Kazan). Email: global@ores.su

RECIBIDO: 7 de noviembre del 2018. **APROBADO**: 24 de noviembre del 2018.