CONTENTS

HORMONAL STATUS OF TEENAGERS THAT LIVE ON TERRITORY CLOSE TO OPEN MULTIMETALLIC ORE DEVELOPMENTS

Namazbayeva Z.I., Battakova J.E., Buymukhanov R.M., Amanbeckova A.U., Benz T.A., Jumabeckova S.J.

National centre of labor hygiene and professional diseases, Karaganda, e-mail: med-ekologia@mail.ru

Teenagers that live close to open multimettalic ore developments, were studied on the subject of hormones' content. A disturbance in organism hormonal homeostasis is referred to one of significant deviation under various chemical loadings. The research has revealed some significant alteration in hormonal status indexes that testifies the development of endocrine pathologies.

Keywords: hormonal status, testosterone, cortisol, teenagers, open multimettalic ore development

Open ore mining leads to increase and accumulation of metal-containing products on vast territories. It is known, that neuroendocrinal system is the most reactive in response to exogenous stressors and plays a significant role in the development of metabolic processes that determine a pathogeny of ecologically-determined deviations' formation. Thyroid hormones have the widest activity range, they control protein, lipid, carbohydrate, water-sodium metabolism, and also processes of cell growth and differentiation. It is well known, that gluco-corticoids and adrenal steroids are the major adaptive hormones and serve as metabolism regulators [1, 2, 3].

In this case, the objective of our research is studying hormonal status of teenagers who continuously live in conditions of open multimettalic ore mining.

Materials and methods of research

A complex clinical-laboratory inspection of tenagers' health condition in age of 15-16 years that live close to open manganese-containing ore minings, has been carried out. All studied were divided into groups depending on their gender and location. 4 groups were formed: group 1 and 2 – teenagers who live in «relatively» clean region, group 3 and 4 – teenagers who live on territory that neighbors an open multimettalic ore mining. The criterion for including into the research were teenagers who continuously live in the studied district for no less than 10 years and go to school in their life location. The control group was formed by persons who live in region that is considered to be relatively clean, though, according to sanitary-hygiene, climate, and social conditions, does not differ from the comparison groups.

With usage of immune-ferment analyser Zenyth 340 st was carried out the definition of level of hormones T_3, $T_{4fr.}$, follicle-stimulating hormone (FSH), luteinizing hormone (LH), prolactin (PL), progesterone (PG), testosterone (TS), cortisol (C). Toolkit by Dia Sys Starbust MC15 was implemented. Blood in amount of 5 ml was taken from veins at 9-10 a.m. on an empty stomach, after receiving informed assent from parents. The level of non-organic iodine excretion with urine was defined by method of A.K. Myshkina [4].

Static processing of results was carried out with usage of parametric criterions and results' estimation on a normal distribution with usage of software pack STAT 5.5. Confidence interval (CI), including that for average values, was calculated with a fixed reliability level 95%.

Results of research and their discussion

Comparative analysis among various girls' groups showed that an increase in cortisol hormone content up to $310 \pm 19{,}8$ mmole/litre takes place among the third group (CI 290-390,6) in comparison with the first group (CI 220-270) (table). Similar trend is observed for prolactin, where its content in comparative group grows up to 68% (CI 223-390). While concentration of free T_{4fr} thyroxin decreases by 47% (CI 9,1-14,1). Antibodies level against TRO grows to the top of its physiological limit ($30{,}0 \pm 2{,}5$ units) ml., that exceed the same index of the first group more than 1,7 times (CI 27-33,2).

A forced utilization of iodine is observed within the third group, which reflects in its accumulation in urine by 29% more than in the first group (CI 133-162).

Within male teenagers (15-16 tears) we can observe a significant accumulation of cortisol in blood within the fourth group – up to $318{,}3 \pm 21{,}4$ (CI 310-335), which is 21% more, than that of the second group. Prolactin content has a similar trend, which is by 40% more in the comparative group against the second group. A decrease in free thyraxine T_{4fr} by 40% is observed, antibodies level against TRO grows two times. Intense iodine utilization in urine in averageof 40% (CI 153-191) is revealed (table).

The obtained results show, that alterations are typical for both boys and girls. Registered alterations possibly carry an adaptive character, considering active role of cortisol as an adaptive hormone under the impact of stress factors. The decrease in T_{4fr} shows an organisms' need for thyreoid group hormones within the period of pubertal mass-height hike that remains up to 16 years old inclusively. Thyreoid tissue is rich in blood vessels and, possibly, with the blood flow, a high number of toxic products goes through it, these products have a goitriferous effect upon thyroid follicles. One of the chemical loading'

destructive effects is a decrease in follicles' ability to link non-organic iodine, therefore, its content in urine grows. Possibly, dust that contain such metals as Mn, Pb, Hg that are goitreferous, suppresses thyreoid hormones' synthesis in follicular apparatus of thyroid. It is also possible, that disturbance in T_{4fr} secretion has a secondary character through the impact of unfavourable factors of atmosphere upon hypothalamo-, hypophysical, and thyroid system.

Teenagers hormone level in dependence on their location

Hormones	Group 1 – control, girls (n – 42)	Group 2 – control, boys (n – 36)	Group 3 – girls (n – 40)	Group 4 – boys (n – 38)
Cortisol (mmole/l)	230 ± 21,2	261 ± 33,4	310 ± 19,8*	318,3 ± 21,4*
FSH (miu/ml)	9,0 ± 1,3	5,0 ± 2,0	8,9 ± 0,9	6,2 ± 1,7
LH (miu/ml)	2,8 ± 1,4	3,01 ± 1,8	3,6 ± 1,9*	3,8 ± 1,7
Prolactin (miu/ml)	202 ± 29,4	208,3 ± 41,3	360,9 ± 20,7*	304,3 ± 22,7*
Progesterone (kmole/l)	3,4 ± 0,36	0,9 ± 0,09	3,6 ± 0,9	1,2 ± 0,06
Testosterone (mmole/l)	0,43 ± 0,02	14,3 ± 1,4	0,5 ± 0,05	11,4 ± 2,0
TSH(mkm/ml)	1,7 ± 0,49	2,2 ± 0,5	2,1 ± 0,31	1,8 ± 0,61
T_3 (thriiodothyronine) (nmole/l)	1,19 ± 0,50	1,2 ± 0,36	1,08 ± 0,3	1,4 ± 0,24
T_{4fr} (free thyroxine) (nmole/l)	19,4 ± 1,4	17,2 ± 1,02	10,4 ± 2,3*	10,1 ± 0,59*
Antibodies to TRO (U/ml)	10,8 ± 2,9	12,6 ± 2,1	30,0 ± 2,5*	29,4 ± 1,3*
Y content in urine (mkg/l)	114 ± 2	120 ± 3,4	148,1 ± 6*	171 ± 7,6*
Comment * – reliability *0,05				

As known, thyroid hormones provide anabolic and catabolic processes that are necessary for normal growth. Within processes of ossification and differentiation of skeleton thyroid hormones provide normal bone structure and significantly influence a body height that is expressed within the period of sexual maturing. Perhaps an increase in prolactin content is related to compensatory effect from the decrease in T_{4fr} content, as, being an anabolic effect hormone, it stimulates growth and protein synthesis.

References

1. Risk factors in disturbance of organism reproductive function in terms of territorial-industrial complex / Z.I Namazbayeva, N.K. Dyusembayeva, M.A. Mukasheva, K.I. Sadykov // Hygiene and sanitation. – 2010. – №1. – P. 51-54.

2. Endocrinology and metabolism / F. Felic, J.D. Baxter, A.E. Brodus, L.A. Fromen. – M.: Medicine, 1985. – 520 p.

3. Baranova A.A., Shepchalina L.A. Physiology of children and tennagers growth and development // Theoretical and clinical problems. – M.? 2000. – 584 p.

4. Myshkina A.K. Endocrinology probems. – 1991. – Ch-37, №5. – P. 37-28.

METHODOLOGICAL APPROACHES FOR THE PREVENTION OF COMBINED EFFECTS OF NOISE AND VIBRATION ON THE BODY

Tatkeyev T., Abitayev D., Seksenova L., Muhametganova Z., Atshabarova S., Nazar D., Rachmetulaev B.

National Centre of Labour Hygiene and Occupational Diseases by the Ministry of Healthcare of Kazakhstan, Karaganda, e-mail: ncgtpz@gmail.com

In experimental conditions conducted the estimation of the combined action of noise and vibration on an organism of examinees. During experiment it has been revealed that indicators reflecting a condition of the central nervous system and the higher nervous activity, acoustical and vibrating sensitivity had considerable deviations even at action of factors at level of the sanitary standards and exceed such standards in the separate action of both factors, indicating that the adverse effects of two factors at their combined effect.

Keywords: methodological approaches, combined effect, noise, vibration

A major focus of preventive medicine, which aims at optimizing the working conditions, and reduction of morbidity and improvement the workers health is the hygienic regulation of parameters of adverse factors of production environment. In this regard, developing a framework of hygienic standardization of noise and vibration should be considered as absolute achievement in medical science (Suvorov G.A., Ovakimov V.D. et al, 1990). So, lately, one of the main tasks of hygienic science in regulation is a matter of choice and justification of the criteria that adequately reflect the degree of influence of production noise and vibration of various kinds on the organisms of the workers. With their help it would be possible to estimate the probability of noise-vibration pathology simultaneously on all three physical parameters that characterize their impact – the level, composition, frequency fluctuations and exposure time (Tatkeyev T.A., 1999, 2005).

Approaches to different hygienic evaluation (frequency, level and duration of exposure) of noise and vibration made it possible to determine the theoretical concept of the energy impact of noise and vibration. In accordance with the energy model of non-permanent noise and vibration action their hygienic assessment is equivalent (in energy) to the level of sound or vibration, which is an integral over time in the sound level in dB A or adjust the value of vibration in the DB (Suvorov G.A., 1991). Energy model of noise and vibration action has been confirmed in studies and was implemented in the development of modern principles of rationing (Abullin Kh.A., Amangeldin S.K., 2001). The necessity for normalization of vibration and noise in their combined effect on the human body was proved. This is due to the fact that both factors usually accompany each other in the production environment. The data of domestic and foreign literature suggests that the combined effect of vibration and noise causes more expressed functional changes in human bodies compared to the separate influence of these factors at the same levels (Kulkybayev G.A., Tatkeyev T.A., 2002, Tatkeyev T.A., Tekebayev K.O., 1999).

The aim of the work was to develop a new methodological approach to the study of the quantitative evaluation of the organism reactions to the combined impact of noise and vibration factors.

Materials and methods of research

In accordance with the assigned tasks we carried out production and experimental research. Production studies were carried out at Zhayrem mining processing plant. Experimental studies were conducted in the laboratory of Industrial Hygiene (National Centre of Labour Hygiene and Occupational Diseases MH Kazakhstan, Karaganda).

Hygienic studies included measurement of levels of vibration, noise at the drills operators' workplaces and timing observations. Measurement of noise and vibration was conducted on the vibroacoustic equipment of the company «SVAN» (Russia).

Measurements of noise in the workplaces were carried out while performance of the basic technological operations taking into account the requirements. Measurements were made with a triple recurrence. Noise parameters were evaluated by sound pressure level in octave bands with subsequent calculation of the dose of noise. Vibration parameters were studied by the levels of the mean values of the vibration velocity in octave frequency bands with subsequent calculation of adjusted equivalent dose levels and vibration. We determined the structure of work activities including working process evaluation by operations, their change and duration, timing of the allocation of vibration exposure, work and leisure intervals' distribution, as well as presence of pauses and micropauses. Experiments were carried out in accordance with the principles of the mathematical theory of experiment involving 30 healthy volunteers (men), divided into three age groups of 18-31, 32-45, 46-59 years old, according to the scheme of a full two- factors experiment.

The loads were modeled with time exposure factors in the experimental chamber. Local vibration in the vertical direction with the main frequency of 31,5 Hz was reproduced on the vibrobench VSL-70/200. Using the broadband noise generator noise typical for drillers' work was reproduced. The lower, main and upper levels of the investigated effects were respectively 79, 85, 91 dB (at vibration accelerations) for the local vibration, 83, 89, 95 dB A for noise. Recalculated for an eight-hour work-

ing day, using the basic approach of dose levels of the studied noise and vibration loads were equivalent to the maximum permissible level, and upper and lower levels were 6 dB more and less than the standard. The plan of the experiment allowed to obtain independent estimates of linear effects of the isolated impact of each factor on the basis of four different combinations of upper and lower levels of the factors. For the experimental verification of the assumptions about the insignificance of the quadratic effects the 5-th version of the exposure was investigated when both factors were fixed at the basic levels.

Physiological studies included methods adequately reflecting the impact of noise and vibration on the sensitive areas: peripheral vascular, nervous and muscular systems. To assess the degree of change in sensitive areas we defined temporary threshold shift (TTS) and permanent threshold shift (PTS) of auditory and vibration sensitivity.

The most appropriate (specific) indicator for the vibration tension is the vibration sensitivity. This method is used to detect early signs of adverse effects of vibration. In our studies we used vibrotester «IVCH – 2». Thresholds of vibration sensitivity were measured on the phalanx of the right hand's third finger in the octave band of 125 Hz. Sensitivity threshold was recorded by 2-3 measurements, from the increase in signal to the sensitivity threshold, and gradual reduction from the above-threshold to imperceptible. Also the recovery period was taken into consideration.

Assessment of auditory function of the patients was performed in the frequency range of 125-8000 Hz. Measuring the auditive acuity in volunteers was conducted from sub-threshold to threshold intensity to exclude the influence of the residual sound image in a special chamber insulated from noise with a volume of 25 m and coefficient of sound insulation for more than 30 dBA. In audiometric studies the following indicators of auditory threshold sensitivity were taken as the leading ones in assessing auditory function: in the field of the speech frequencies (1000.2000 Hz), and loss of hearing at 4000, and 8000 Hz. The criterion for establishing temporary reduction of the hearing threshold, characterized as distressing (adverse) impact was accepted the rate of the arithmetic mean of reducing the threshold of hearing in the speech range, equal to 10 dB or more, time for «backward» adaptation, and temporary reduction of auditory threshold to its original values.

To determine the functional state of the central nervous system and visual analyzer of the patients we determined the duration of the latent period of the rate of hearing and sensomotor reactions to simple light, sound, and differentiated light stimuli. Time of reflex refers to the simplest form of reaction, but at the same time the visual and auditory analyzers have a great potential. Therefore, the changes occurring in the cortical link of the analyzers to a large extent reflect the degree of fatigue. Reaction time to light and sound depends on the speed of transmission of excitation through the central masses. Therefore, the reaction time to light and sound are widely used to assess the state of the central nervous system. To determine the time of the sensomotor reactions to light and sound (latent period of visual motor reactions (LP VMR), latent period of auditory motor reactions (LP AMR)) we used a hardware-software complex for psychophysiological research. This program presents various options of complexity with the issuance of the final result as a statistical report with the calculation of mathematical expectancy, average error, sigma, coefficient of variation, as well as the number of error decisions and the number of missed transactions. The program also gives the result as an entry in the file that allows to optimize the problem of collecting and processing the results.

Results of research and their discussion

In the two factors experiment with the participation of the volunteers in three age groups the effects of noise and local vibration in five different combinations to the change of the physiological characteristics of different body systems were studied. However, for greater objectivity we selected practically healthy people having no contact with the noise and vibration excessing maximum allowable levels to participate in the experiment.

Data on experimental studies of physiological functions indicated change in indicators of the functional status of the volunteers' organisms of varying severity depending on the dose of acoustic and mechanical vibrations, as well as on the age.

In the first age group of the volunteers action of the factors with doses equal to 25% of the permissible level did not cause significant changes of physiological parameters, and subjective feelings were comparable with those in their optimal levels (series I). In series II the action of the noise with the lower limit and action of the local vibration with the upper limit (91 dB) caused a significant decrease in the vibration frequency of the volunteers to 14,5 dB. The threshold of hearing at the frequency of 1000 Hz slightly increased compared with the control. Lowering the reaction time to light was 18,8; 13,0% to the sound, and differentiated response to the lowering of the leading lights of the latent period was 20,0%. Also in this series, we observed decrease in frequency of the pulse rate to 12,8%, decrease of the muscle strength to 12,4% compared with the control. According to the results of subjective sensations we traced significant decrease in the activity by 12% from the control.

A combination of factors with an upper level (95 dB A) of variation of noise and lower value of the vibration (series III) with an hour exposure was revealed in a significant increase in hearing threshold at 111,3% of the 1 kHz tone, a decrease in the rate of reaction to light and sound stimuli, respectively, to 16,5 and 20%, increase in the number of errors and reaction time for AVMR to 16,3%. The health reduction was 11,2%, mood decreased to 9,8% from the basic indicators. The most apparent changes in the volunteers' organisms in this age group were found in series IV, where both controlled factor took upper levels of variation and thus, were 4 times higher than the permissible dose. So the raising of the vibration frequency threshold to control was 97,1%, the threshold of hearing to the different tones rose in average

to 122,0–200,0% compared with the control. Increase of reaction time to light and sound was 22,0% and 22.3% respectively, relative to control. FFF decreased to 17,4%, decrease in frequency of the pulse rate was 14,0%, muscle strength decreased as compared with the control to 19,6%. There was a significant decrease in indices of subjective feeling of health, activity and mood to 14,3; 16,9 and 12.3% respectively.

In the series V of the experiments under the combined effects of noise and local vibration to levels equal to Sanitary Standards (SS) there was a significant increase in the threshold of the vibration sensitivity to 74,2%, increase in hearing threshold for speech and high tones at an average to 93,0–140,0%. The latent period of auditory motor reactions (AMR), visual motor reactions (VMR) and auditory-visual motor reactions (AVMR) increased to 14,2; 14,6 and 1,8% respectively. Decrease in frequency of the pulse rate was 7,9% compared with the control, and activity lowered to 10,7%, health feeling to 8,2%, and mood to 7,0%. In conducting parallel series of the experiments on the volunteers of the second age group we found the impact of the level was lower four times than the sanitary standards (SS). Series I did not cause significant changes of physiological parameters.

In the action of the noise level 4 times below SS and local vibration 4 times higher than SS (II series), we observed significant changes of vibration sensitivity, which decreased compared with the control to 74,5%. Also in this series we have recorded 30% increase in hearing threshold to tone I kHz as compared to the baseline. Increased reaction time to light and sound stimuli relative to control was 14,4% and 10,4% respectively. The response time for complex visual-motor reaction is also lengthened to 13,7% from the original. With the given parameters of physical factors the pulse reacted by curtailment to 9,5%, and muscle strength decreased to 11,0% from the control level. We observed decrease in activity to 10,3% according to the indicators of the subjective symptoms.

In Series III of the experiment after exposure to high noise and low vibration a significant increase in hearing threshold to 50,0–77,0% was observed, lowering of the vibration sensitivity amounted to 36,0% from the baseline level. Extending the reaction time to light, sound and differential stimuli was 12,5; 14,5% and 16,2% respectively. Decrease in frequency of the pulse to the frequency was 4,0%, and there was the falling rate of health to 10,2%, and the mood to 9,2% as compared with the control.

Under the influence of the factors with the levels exceeding SS (series VI), vibration sensitivity decreased as compared with the control to 81,0%, there was the increase of the hearing threshold to 58,0–80,0%. In the speech and high frequencies reaction time to light lengthened to 18,8%, sound to 24,2% and Differentiated auditory motor reactions time was 25,0% longer than the baseline level. Indicators of FFF decreased to 12,9%, and from the side of the cardiovascular system there was a decrease in frequency of the pulse to 12,0% compared with the control. Muscle strength decreased to 13,7%, and there was a decrease in feeling and mood to 13,6 and 12,5% respectively.

In the fifth series of the experiment index of vibration sensitivity decreased compared to the control to 54%, raising of the hearing threshold at frequencies was 43,0–56,0% compared with the control, reduction of reaction time to light was 11,6%, to the sound – 11,5% and differentiated auditory motor reactions – 12,3% compared with the baseline. The frequency of the pulse slowed to 6,3%. After the combined effect of the studied factors, in the third age group, we observed the following changes: in the series I there was a reliable reduction of vibration sensitivity to 30,9% of the initial value; in the series II, after exposure, there was a reduction of vibration sensitivity to 66%, time for auditory motor reactions decreased to 12,8%, time for visual motor reactions decreased to 22,2%, differentiated visual motor reactions and the number of errors increased to 20,2%. The pulse rate decreased to 11,6% from the baseline level, against this background muscle strength decreased to 20,5%. According to the indicators of the subjective lowering we found that health and activity decreased to 13,3 and 17,2% respectively.

Series III showed that after the exposure to noise 4 times exceeding SS level and 4 times exceeding the level of local vibration there was a significant lowering of the threshold of hearing to 12,0 dB. The vibration sensitivity decreased to 6 dB compared with the control. Time of visual motor reactions decreased from baseline to 16,7%, auditory motor reactions also decreased to 20,7%, and differentiated visual motor reactions decreased to 23,8% compared with the control. While the action of the factors specified levels FFF decreased to 20,3%.

In the experiment with the highest levels of noise and vibration (series IV), the deviations of the studied physiological parameters in comparison with other series were most significant. This increase in thresholds for vibration sensitivity was 16 dB relative to control, hearing thresholds also increased to 14 dB, deviations of visual motor reactions downward were 23,1%, while auditory motor reactions decreased to 30,5% and the time of auditory visual motor reactions fell to 26,0% compared with the control. We also noted the decrease of

FFF to 22,6%, decrease in frequency of heart rate was 14,3% in relation to the original level. The index of the muscle strength decreased to 26,3% of the control level. Here, we observed a significant, compared with other series decrease of subjective feelings, activity and mood to 19,1; 22,8 and 20,0% respectively.

By the combined effect of noise and local vibration with levels equal to SS (series V) we observed a significant increase in vibration sensitivity to 11,5 dB compared to the baseline level, while the hearing threshold increased to 9 dB compared to the control, decrease of the rate of reaction to light and sound were 17,2 and 19,7% respectively. Time for differentiated visual motor reactions increased compared with the control to 16,1%. FFF decreased to 8,9%, decrease in frequency of the pulse rate was 12,2% of the control, reduction of muscle strength was 14,6% of the baseline level. Feeling, activity and mood decreased to 11,3; 12,3 and 12,9 of the control.

For all the studied parameters, with the combined effects of different levels of variation factors of noise and local vibration we can see that the most expressed reaction were in the third age group. Also, it is clear that the greatest deviations of the functional systems of the body were observed in series 5 of the experiments under the influence of both factors in excess of health standards by 4 times. Under the action of both factors on the SS level (5 series), the deviations of physiological variables are less than in the series 2 and 3, in which one of the factors exceeds SS more than 4 times.

Thus, summarizing the results of five series of experiments with different combinations of noise and local vibration we can say that the controlled real doses in experiments of physical factors in the interaction with each other have a significant impact on the physiological functions of the body and subjective perceptions of the people with different strength of influence. In this case, as shown by analysis of the data, changes in the specific receptor systems (auditory and vibration sensitivity) mostly reflected the influence of adequate stimuli. The experiment revealed that the indicators reflecting the state of the central nervous system and higher nervous activity, acoustic and vibration sensitivity had significant deviations even under the influence of factors on the level of health standards and exceeded those in the separate action of both factors, indicating the adverse effect of two factors in their combined influence. This suggests the need to amend the existing regulations of noise and local vibration with regard to their combined effect on the workers' bodies as well as individual factors: individual sensitivity, congenital or acquired risk factors, harmful habbits and lifestyle factors.

Reference

1. Abdullin Kh.A., Amangeldin S.K. Hygienic and physiological evaluation of working conditions hand drilling drillers // Matters of Physiology, labor hygiene and occupational Pathology. – Karaganda, 2001.

2. Kulkybaev G.A., Tatkeyev T.A. Prediction of safe experience in vibration exposure. – Karaganda, 2002. – P. 44.

3. Suvorov G.A., Denisov E.I., Ovakimov V.G. Evaluation of the probability of vibration disease from the local vibration action taking into account confounding factors // Hygiene of labor and occupational diseases. – 1991. – №5. – P. 5-9.

4. Suvorov G.A., Ovakimov V.D., Denisov E.I. Physiological-hygienic evaluation of the combined effects of unfavorable factors in a rolling production / Hygiene of labor and occupational diseases. – 1990. – № 8. – P. 35-39.

5. Tatkeyev T.A. Vibration factor in the miners' labour. – Karaganda, 2005. – P. 43.

6. Tatkeyev T.A., Tekebayev K.O. Combined effect of noise and local vibration in the mining industry // IV Congress of Physiologists of Kazakhstan «Physiological basis of a healthy lifestyle». – Astana-Karaganda, 1999. – P. 298-300.

Materials of Conferences

EXPERIMENTAL ESTIMATION OF INSECTOACARICID ACTIVITY OF VETERENARY FHARMACEUTICALS FOR TREATMENT OF LABORATORY RATS' COMPLEX EXOPARASITOSES

Bukatin M.V., Ovchinnikova O.U., Chernikov M.V., Sendryakova V.N.

Volgograd state medical university, Volgograd, e-mail: buspak76@mail.ru

The most important link in structure of medico-biological experiment is laboratory animals. Requirements of scientists to quality of laboratory animals, to their standardization on a genotype, maintenance and feeding conditions, testability on micro-flora and parasitic organisms now have essentially increased. Laboratory animals are subject to various diseases. For example, very common situations are exogenous parasitoses, such as trichodectoses and sarcoptoses. Frequently sarcoptoses and trichodectoses meet in association. Despite the many new pharmaceuticals for treatment of this exoparasitoses in the Russian veterinary market, there are no accurate schemes of treatment and dosages for rodents. Summarising the above-stated and considering a wide circulation of sarcoptoses and trichodectoses, it was found expedient to investigate a spectrum of insecticid and acaricid activity of preparations accessible in veterinary drugstores of Volgograd (Russia). It is revealed, that the most presented preparations are «NeoStomosan», «Celandin Sprey», «Leopard», «Frontline Sprey» and «Zoopowder Puldis». Three from these («Leopard», «NeoStomosan», «Zoopowder Puldis») have been chosen for estimation of acaricid and insecticid effects. All preparations are recommended for struggle with parasitic invasions of cats and dogs whereas an exact dosage for small rodents is not revealed.

The experiments were carried out on 120 outbreed sexually mature male rats (190-210 g), according to the international norms and rules of work with vertebrate animals (Strasbourg, 1999). It was confirmed clinically and morphologically that all animals were parasitized with the following: sarcoptos bodies, ears, superciliary arches and expressed diffuse trichodectoses. Animals have been divided into 4 equivalent groups. Animals of the first group were exposed by the «Leopard» spray, the second group – by «Leopard» drops, the third group was processed by «Puldis», and the fourth group – by «NeoStomosan». The degree of parasitic invasion was estimated every day on an original scale by «Estimations of an external condition of laboratory animals» within 6 days.

Our results indicate that the activity degree of the investigated preparations can be distributed as: «Leopard»> «Puldis»> «NeoStomosan», and by efficiency (the speed of full clearing from parasites) – as: «Puldis»> «Leopard»> «NeoStomosan».

The work is submitted to the International Scientific Conference «Fundamental Research», Dominican republic, 13-24 April 2011, came to the editorial office on 10.02.2011

PROBLEMS OF ADEQUATE ACCESS TO A MOUTH OF LABORATORY ANIMALS FOR ORAL CAVITY PATHOLOGY MODELING

Bukatin M.V., Krivitskaya A.N., Ovchinnikova O.U., Chernikov M.V., Timoshenko A.N.

The Volgograd State Medical University, Volgograd, e-mail: buspak76@mail.ru

Experimental researches are a component of many scientific works in all areas of medicine and biology. Various kinds of dental pathology are studied on biological models, new dental technologies are developed. Morphological features of a structure dentoalveolar system of the basic objects of medical and biologic experiments (mice, rats, porpoises and hamsters) create some difficulties at modeling in experimental dental. Thus, working out of methods of adequate access to a mouth of small laboratory animals for modeling of dental pathologies is represented an actual problem.

The purpose of the present research was the estimation of adequacy of access to a mouth of laboratory rodents and creation of designs allowing solving a problem of difficulties of this access. The ways described in the literature, are widely used at anatomization of laboratory animals mouth, and consist in introduction in a rodent mouth the structures allowing accurately fix it (metal dilators are directly in mouth, behind the top and bottom cutters). These ways are simple – dilators are "legs" of surgical tweezers. However, these techniques are inefficient in a therapy. Clamps of jaws are the metal designs which are directly in a rodent mouth and, thus, being additional obstacle of access to it. This is the first main lack of available techniques. The second lack is a mechanical influence on the oral cavity mucous membrane, creating additional trauma of soft fabrics. And, at last, the third physical and biochemical lack consists in occurrence of process of electroplating process in an animal mouth. We had been developed an original design, with the account morphofunctional features of rodents' maxillofacial area which pluses are: an arrangement of clamps of jaws out of an animal oral cavity; clamps are made of a soft material.

Thus, results of our work were technique working out and the design creation, which efficiency in experimental conditions consists in al-

most unimpeded access in an oral cavity of small laboratory animals.

Now the futility of the method of repeated modeling of dental pathology is proved, due to the fact that the animal in the first complex experiments are killed either immediately or after (within 2-3 days). Consequently it is almost impossible to spend a number of numerous modeling a tooth pathology at a rodent, for revealing of dynamics of this disease and, as consequence, the forecast of efficiency of this or that method of therapy. The design developed by us allows lowering considerably probability of undesirable consequences of modeling on dental system of laboratory rodents.

The work is submitted to the International Scientific «New technologies, innovation, invention», Maldives, 16-23 March 2011, came to the editorial office on 10.02.2011

VALUE ASPECTS OF HEALTH

Petrova N.F.

The Stavropol state university, Stavropol, e-mail: klinpsych@mail.ru

Health is our natural, absolute, and perpetual value that occupies the highest position in an hierarchy stairs of values. As the society develops and prosperity level grows the awareness of health value also increases. Health nowadays is one of the necessary conditions of active, creative life of full value. Human's health is, first of all, the process of saving and development of his psychological and physiological characteristics, optimal work condition and social activity along with the maximum life duration. Health is determined by the following factors: human's biological abilities; social climate and environmental conditions. Studying factors that influence human's health is the basis of health science [1, 2, 6, 7, 10, et.c.].

Denial of health concepts polarization into health and disease required new scientific developments. Creation of health learning became necessary. A single learning of human's health can be conditionally defined as *health science*. It includes a whole complex of science that have the following characteristics: relation and cooperation with other human sciences; presence of integrative characteristic, system of scientific knowledge and strategy; multi-levelness: the presence of theoretical, practical, and organization levels; diversity of health influence means (formation, saving, strengthening, restoration).

The object of health science is human's health in its all normal and pathological displays, in person's interaction with his environment that is studied in order to reveal the reasons, conditions, and legislations of his reserve abilities alteration. The matter of health science are health criterions that allow us quantitatively and qualitatively evaluate health or its dynamic trends along with the alterations in vital functions forms [11, 12, 13 et.c.].

In general, health criterions, according to A.L. Dimova are: for somatic and physical – *I can*, for psychological – *I want*; for moral – *I must*. Besides, the following characteristics of health are outlined: specific (immune) and non-specific steadiness to damage factors impact; growth and development indexes; functional condition and reserve organism capabilities; presence of any disease and the level of moral-will and value-oriented settings.

People's health condition is dependent on individual way of life, environmental factors influence. Reserves of human's health sustain is in the way of life organization, that s defined by medical culture, including person's knowledge of genetic, physiologic, psychological organism's abilities, control and preservation of psycho-physiological status and health strengthening methods, skills to spread medical-biological knowledge in one's communication circle and social environment in a whole [16].

Health is also dependent on inherited and obtained conditions, adaptive and protective mechanisms disturbances, ecology, upbringing, and also on endogenous and exogenous factors that may have both positive and negative impact on it.

However, the analysis of Russian population health condition, according to the data of official statistics and the results of epidemicological research («Demographic yearbook of Russia…», 1995-2000; «Healthcare of Russian Federation», 200; «Analytic material of State Statistic Committee», 2002; Governmental report «On sanitary epidemic conditions in Russian Federation in 2001») show, that it is much worse than in most of industrially-developed countries and its further worsening should be expected unless the conditions that influence health are significantly improved. The greatest importance is referred to factors that are related with environment and the way of life, as these factors can be corrected on both population and individual level.

All that testifies the new need for a new strategy of preventive measures aimed for the increase in individual population activity in practical mastering of skills and knowledge of healthy way of life, the formation of social awareness that is oriented for the healthy way of life, increase in a human's health improvement culture.

Way of life represents the method of individual or group vital functioning in unity of the objective and subjective. Under the way of life we mean stable, formed under certain social-ecological conditions means of human's vital functioning, that is displayed in norms of communication, behavior, way of thinking.

According to E.N. Wayner [10], the concept of the way of life should be defined as a method of human's vital functioning that one follows in his everyday life because of social, cultural, material, and professional conditions. In this definition we should outline a culture aspect showing that way of life does not equals its conditions that only provide

and condition the way of life by material and non-material factors, a man's culture here, in the context of discussed problem, mean that a man choose his own way of life himself, depending on his knowledge and life position [3, 4, 5, 8, 11 et.c.].

A great importance in proving the way of life comes to a personal component, that imply setting a way of life in accordance to inherited typological human qualities, inheritedly-defined or obtained diseases or disturbances of his immunity and regulative-adaptive systems, level of education, life goal settings, present social-economical conditions. Individual way of life addressness, that must include described factors into the list of initial premises, should be considered as a naturally-determined.

So, the way of life is a bio-social category, that integrate the concept of definite human vital functioning type and is characterized by his professional activity, household, form of material and spiritual needs satisfaction, rules of individual and social behavior.

Y.P. Lisitsyn included four categories into the way of life: economical – the level of life; social – the quality of life; social-psychological – lifestyle; and social-economical – the life setup. Along with that people's health is dependent on style and setup of their lives that in their turn are defined by historical traditions, fixed in humans mentality.

Biological trends in the way of life of a modern person significantly intensify the main health problem that is in the antagonism between growing need for good health and unfavourable alteration in its condition. The letter is often liked to poor hygiene, valeology, and ecological competence and also to a behavior passiveness that can be described by the dual human nature: biological and social. In a man's way of life a conflict between biological (a will to take pleasure) and social (mind and intellect) arise. In dependence on what factors prevail a person forms his individual way of life.

Healthy way of life can be characterized as a person's activity aimed for saving and strengthening his health. Here it is necessary to consider the fact that the a way of life of a man or a family does not form by itself in dependence on circumstances but is formed during al the life period continuously and purposefully.

The healthy way of life formation is the main key of initial prevention and strengthening of a population health trough alteration of life style and setup, its improvement with usage hygiene knowledge while fighting bad habits, hypodynamia and overcoming unfouvarable impacts that are related to life situations [14, 15].

So, *under the healthy way of life* we should mean typical forms and methods of everyday «vital functioning that strengthen and improve reserve organism's abilities, thus provind successful accomplishment of social and professional functions regardless of political, economical, and social-psychological situations».

To characterize the healthy way of life eight basic positions that reflect the most favourable impact on heath are used. These include active life position, full-value rest, balanced nutrition etc. Every of these positions is characterized by phychophysiological satisfaction that has a positive effect on a person's overall condition.

An opposite position (dissatisfaction with life situation, hypodynamia, abuse of alcohol and smoking etc.) characterize unhealthy way of life that is related to discomfort, accumulation of negative emotions and factors that will, sooner or later, affect nervous-psychological status of a man and become the first step to an organism disease.

According to E.N. Wayner [10], a healthy way of life structure must include: optimum movement regimen, rational nutrition, rational life regimen, psychophysiological regulation, psychosexual and sex culture, immune training and hardening, absence of bad habits and valeological education.

A healthy way of life as a system forms out of three basic interchangeable elements (three cultures): nutrition culture, movement culture, and emotional culture. Single health-improving methods and procedures do not give desired and stable health improvement since they don't interfere with a single psychosomatic structure of a person.

Undoubtedly, a formation of the healthy way of life has to be complex and combine implementation of whole-state measures with individual behavior. For example, usage of rational nutrition as a prevention of obesity does not only imply the willingness and corresponding knowledge of a person, but also the possibility of its realization, and this is a set of ecologically-clean products in a sufficient quantity, their diversity in the content of proteins, fats, carbohydrates, vitamins, microelements, and calorie content. An absence of one of described components decrease the effectiveness of a healthy way of life realization.

A present education system does not yet provide for a healthy way of life formation, so people's knowledge on a healthy way of life did not become their views. Recommendations on a healthy way of life are often imposed to children in edifying and categorical form that doesn't cause any positive reactions, and adults. Including pedagogues, rarely follow the described rules. High-school children and students do not take care of their heath formation, as it requires certain will efforts, they mostly try to prevent heath disturbances and rehabilitate that what is lost.

Thus, a healthy way of life must be continuously and purposefully formed during all the person's life period and not be dependent on circumstances and life situations. In this case it will become a tool of initial prevention, strengthening and improvement of health, improve reserve organism's abilities, provide successful fulfillment of social and professional functions regardless of political, economical, and social-psychological situations.

References

1. Abramova G.S., Yudchits Y.A. Psychology in medicine. – M., 1998. – 272 p.

2. Adler A. Practice in individual psychology theory. – M., 1995. – 201 p.

3. Akimov M.V. Individual style of a healthy way of life – education goal in the system of physical education // Physical culture: upbringing, education, training. – 2002. – №2. – P. 10-11.

4. Amonashvili S.A. Thoughts on human pedagogy. – M., 1996. – 496 p.

5. Ananiev B.G. Health psychology – a new branch of human knowledge. – SPb., 1996.

6. Antropova M.V., Kuznetsova L.M. Child development and his health. – M., 2003. – P. 34.

7. Apanasenko G.L. individual health as a matter of study // Valeology. – 1997. – №4. – P. 44-46.

8. Baranov A.A., Sukhareva L. Way of life and reproductive health of teenagers // Nation education. – 1998. – №9-10. – P. 177.

9. Bykhovskaya I.M. Health as a practical body axiology // World of psuchology. – №1, 100. – P. 82-89.

10. Wayner E.N. General Valeology. – Lipetsk, 1998. – P. 183.

11. Vasilieva Z.A., Lyubinskaya S.M. Health reserves. – M.: Medicine, 1984. – 320 p.

12. Vorobiev V.I. Health summands. – M., 2000, 1987. – 188 p.

13. Gecht K. Psychohygiene. – M.: Progress, 1979. – 176 p.

14. Lukatsliy M. Initial education priority – health // Pedagogic messenger. – 2001. – №5. – P. 8.

15. Matros L.G. Phylosophy-methodological problems of healthy way of life formation // Person's health under the conditions of scientific-technical development. – Novosibirsk, 1989. – P. 56-66.

16. How J.M., Murray R., Garnham P.C. Health and environment. – M.: Mir, 1979. – 232 p.

Work is submitted to the Scientific International Conference «Ecology and human health», Mauritius, 18-25 February, 2011, came to the editorial office on 23.12.2010.

MARKETING ANALYSIS OF DISTANCE LEARNING IN COMMUNICATION ENGINEERING AND INFORMATION SCIENCE STUDIES FOR ENTERPRISE EMPLOYEES

Strukova E., Kruk B.

Siberian State University of Telecommunications and Information Sciences, SibSUTIS, Novosibirsk, e-mail: stel@sibsutis.ru

In these article results of the marketing research in Siberian State University of Telecommunications and Information sciences are given. Research task was to reveal causes of consumers' behavior on the distance learning services market, understanding the nature of this behavior, definition of distance learning advancement effective channels and of ways of motivation of potential consumers by means of marketing communications.

Keywords: distance learning, distance learning consumers, motivation of consumers, marketing communication

The main objects of research in the marketing of educational services are [1, 6-8]:

- The surrounding marketing environment, market borders and segments, tendencies of quantitative parameter change of supply and demand for educational services in the given market or in its segment.
- Competitive capacity of educational services in the given market.
- Partner-institutions, both real and potential consumers and competitors acting in the market of an educational institution.
- Possible marketing strategies, different variants of tactical decisions of concrete marketing problems.

Market segmentation is the first step of studying the market, the ground for the definition of market capacity and the choice of priority incidence of marketing activity. Market segmentation allows specifying and differentiating a demand, to structure it and reveal the most suitable conditions (borders of the incidence) for choosing an optimal marketing strategy and tactics.

Segmentation of distance learning trainees allows to evaluate an appeal of each segment by its sizes and to choose marketing strategy for each segment.

Distance learning via the Internet becomes more and more appealing. The Siberian State University of Telecommunications and Information Sciences (SibSUTIS) has been using distance learning technologies for higher education services almost about 10 years [2-5]. The number of students studying by distance is steadily increasing. It is illustrated by the diagram on Fig. 1 where the dynamics of student enrollment in distance learning courses since 2000 to 2010 year is shown.

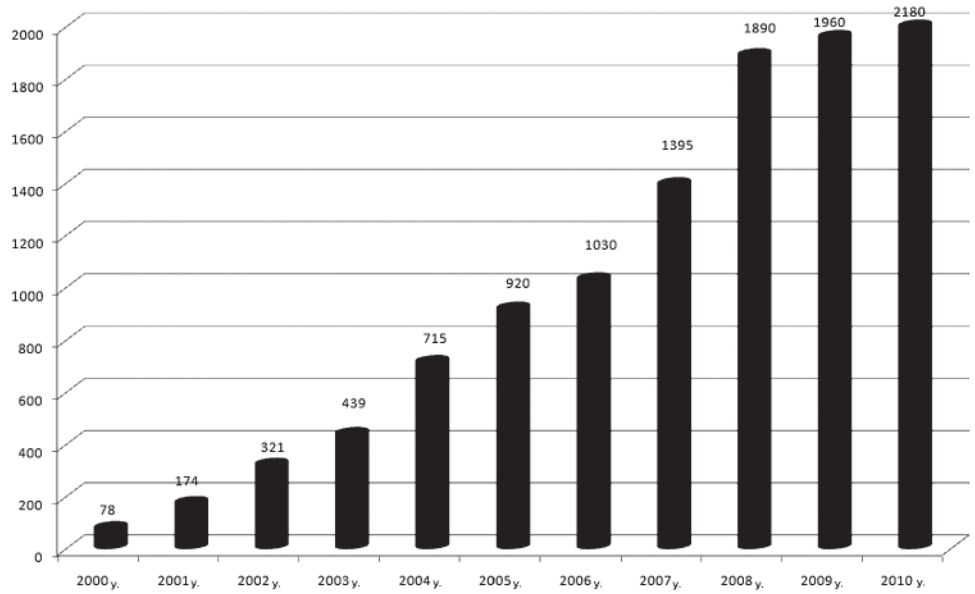


Fig. 1. Dynamics of students' enrollment in distance learning

Trainees have quickly estimated advantages of such kind of training. It is especially convenient for working people, the majority among «distance» trainees. All the materials necessary for training (the theoretical material, laboratory and practical classes) are on the website of the university where trainees login from their computers. They communicate with teachers by e-mail, leaving for the university only at the end of training to take graduation examinations and defend degree thesis.

Today more than 2000 employees from the Russian telecommunication and information technology companies are trained at the university.

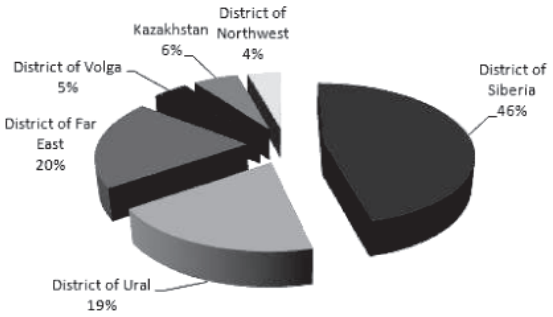


Fig. 2. Classification of DL studenrs by geographical location

Social demographic portrait of dl students

On the basis of the database of distance learning the market segmentation of SibSUTIS Internet-training on groups of consumers has been made. Classification of distance learning trainees has been made by following criteria:

- Geographical (region of trainees' residing, type of settlement).
- Socially-demographic (age, sex, educational level, occupation and its connection with the specialties obtained by distance learning at SibSUTIS).
- Affiliation to the various telecommunication enterprises.

The research has shown, that in general the consumers of distance learning services at SibSUTIS are citizens of Siberian, Ural and Far East districts (Fig. 2) because they are better informed about availability of distance learning in SibSUTIS than citizens of other districts. In turn, their informativity is caused by the geographical position of SibSUTIS. Many of them are graduates from SibSUTIS, the majority works in telecommunication enterprises. It is interesting, that the share of trainees from administrative centers is approximately equal to the share of trainees from countryside (Fig. 3). It is explained by the availability of the given form of training to the population of remote areas.

Fig. 3. Market segmentation by types of settlements

The analysis of segmentation by demographic criteria has discovered that men have more needs for distance learning in comparison to women. So there were 50% of men and 40% of women among the applicants for distance learning in 2009. The same tendency was shown in previous years.

The reasons of such gender deformation originate from economic reforms taking place in telecommunication industry. Telecommunication companies and corporations incorporated into a big Russian holding were set a task to make the industry more attractive for investments, to increase capitalization by means of outsourcing and efficient use of company staff. Both of these means involve dismissing of many people. Historically established that in telecommunication companies men used to occupy more senior positions than women and therefore change of managers and specialists with obsolete store of knowledge has applied mostly to men than to women. Hence they have a motive to be enriched with modern knowledge and data by distance learning.

Segmentation by demographic criteria has shown, that the main consumers of distance learning services are people at the age from 30 to 39 years (41%), and also young men at the age under 30 years (36%). However there is a more senior age category – from 40 to 49 years (21%) and even trainees at the age of 50 to 60 years continue their education.

In this connection, marketing study assumes studying of consumer preferences, the object of research is market segmentation by the specialties offered, connected with a profession (Fig. 4).

Distance learning trainees have a different social status and a professional level. The heads of average and top staff, employees of the economic sector (economists, bookkeepers, sales managers) are interested in economic education. Technical officers and representatives of working professions (electricians, electromecanics), prefer to obtain education in technical specialties.

Fig. 4. Market segmentation by professions

Most of distance learning trainees are technical and engineering employees. They wish to update the knowledge received many years ago, or to raise their education level after graduation from a technical school and a college. Behind them there are the heads who, as a rule do not have modern economic knowledge needed for the division management in the conditions of competitive service market.

As basically the consumers of the Internet-education services are people employed, the segmentation by the enterprises and organizations, which they work in, is of great interest.

The majority of them are employees of such large telecommunication companies, as «Sibirtelecom» and «Uralsvyazinform». It is clear as they are better informed about availability of a new form of training at their «home» university. However in the process of the information circulation to the West and East of the country, the employees of other telecommunication companies – «Dalsvyaz», «Southern telecommunication company», «the Northwest Telecom» and others start pinning their hopes with obtaining the education via Internet (Fig. 5).

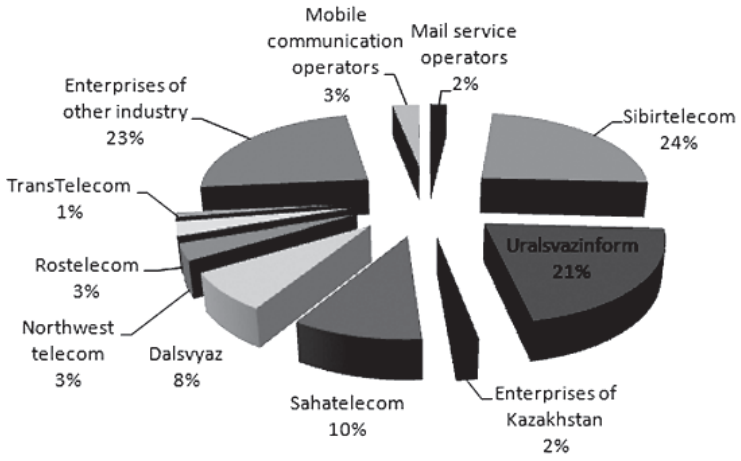


Fig. 5. Market segmentation by telecommunication enterprises

Motives analysis to choose dl

If speaking about main motives which prompt employees from telecommunication industry to apply for distance learning, the analysis revealed an opportunity of a career development and consequently an increase of incomes after obtaining supplementary education.

The market of distance learning differs from the market of traditional face-to-face learning. On the one part distance learning has not gained necessary confidence of the majority of telecom employees. On the other part they note definite advantages of using Internet technologies in learning: study while at work, remain in one location with no need to travel; plan own training. The studies carried out among trainees in SibSUTIS have demonstrated that the majority of trainees (93,2%) find distance learning interesting and not less valuable than traditional learning. 74,4% of trainees from telecommunication industry are fully satisfied with distance learning and have no doubts about choosing this format of learning. 97% of trainees are going to complete a full course of distance learning program and get a degree (though, unfortunately, not everyone can realize it in practice. 74% of trainees would chose distance learning again (if they were to make a choice).

The motives to choose distance learning with use of the Internet channels are of interest. For this reason the telecom employees enrolled for the distance learning course in SibSUTIS have been questioned. The questionnaire has demonstrated that 47% of respondents chose distance learning because of its advantages, i.e. they are already motivated to learning via Internet; 29% of respondents followed advice of friends or those who already study via Internet or company management to which it is profitable to keep employees at their working places;

19% of respondents have been influenced by prestige of SibSUTIS.

Fig. 6. Assessment of general satisfaction of distance learning

Fig. 6 demonstrates the assessment of general satisfaction of the students, who are graduating, with the distance learning course. 23% of graduating students are fully satisfied; 58% of graduating students are mainly satisfied and only 19% of graduating students are partially satisfied with the distance learning course. It is necessary to notice that there has been no unsatisfied graduating student this year as well as previous years.

Conclusion

The prospects of development of the considered market segments and marketing strategy concerning these segments have been defined by the results of the research being carried out.

One of the primary strategies is still a strategy of strengthening the positions in already developed corporate markets. This strategy includes the following actions:

- Carrying out of the large-scale advertising companies in corporate mass media (publications of «Uralsvyazinform», «Sibirtelecom» and etc.).
- Further image improvement of SibSUTIS and the Inter-regional training center of retraining of experts as its division, which provides the Internet-training services.
- Strengthening positions in poor developed markets (operator of post, mobile communications and so forth).
- Constant quality improvement of distance learning services.

The second marketing strategy is the strategy of «capture» of new markets. Here the efforts will be put forth to:

- Penetration into the corporate markets of the CIS countries (Kazakhstan, Kyrgyzstan, Uzbekistan, etc.).
- Organization of new corporate markets (for example, the market of Internet-service providers).

The product development strategy involves:

- Expansion of the list of offered specialties.
- Quality Improvement of offered educational services.

References

1. Pankrukhin A.P. Marketing of educational srvices in the higher and supplemental education. – M.: Interpacs, 1995.

2. Kruk B.I., Zhuravleva O.B. Industry system of distance learning // Open and distance education. – 2002. – Vol. 1.

3. Kruk B.I., Solomina E.G., Zhuravleva O.B. Concept of distance learning corporate system organisation in a big telecommunication company // Open and distance education. – 2005. – Vol. 4.

4. Zhuravleva O.B., Kruk B.I., Silkina N.V., Solomina E.G. Internet technologies in corporate training // Phylosophy of education. – 2006. – Vol. 3.

5. Zhuravleva O.B., Kruk B.I., Silkina N.V., Solomina E.G. Telecommunication specialist training on the base of the Internet technologies // Infocommunication technologies. – 2006. – Vol. 3.

6. Kruk B.I., Strukova E.G. Marketing analysis of the Internet-education in telecommunication field // Proceedings of 7-th annual international workshop and tutorials on elektron devices and materials EDM'2006. – Erlagol, July 1-5, 2006.

7. Kotler P. Marketing Management // Englewood Cliffs NJ. – Prentice Hall, 1997.

8. Lambin J.J. Market-Driven Management: Strategic and Operational Marketing. – Palgrave Macmillan, 2000.

THE DEVELOPMENT OF CULTURE OF VOCAL INTERCOURSE (CONTACT) OF CHILDREN OF PRESCHOOL AGE ON BASIS OF TRADITIONS OF PEOPLE OF SAKHA

Dedykina M.I., Ivanova M.I.

Northeast federal university of a name of M.K.Ammosov, Yakutsk, e-mail: marfa_dedyukina@mail.ru

The article is directed on illumination of questions of the use of traditions of intercourse (contact) of people of sakha, creation of conditions for the informative co-operating of children with people, nature in etnoculture spase of the village. A basis problem is a search of effective methods, elaboration of mechanism of development of culture of vocal contact of children of preschool age. The article considered traditions of contact (intercourse) of children and forms of work with them. Authors are select original connections of contact (intercourse) of child with cur rounding people and traditions which can be used in development of culture of speech of children.

Keywords: culture of speech, intercourse, traditions, inquisitiveness, curiosity

Transition to school training assumes expansion of a circle of communications of children. Communication is understood as semantic aspect of social interaction of the child with different people, information function is realised in this process; [1, p. 131]. Successful training at school, mastering by children of a teaching material (information) in a greater degree depends on development of speech culture of dialogue. From here it is possible to tell that one of the key moments is development of their communicative abilities and culture of speech dialogue in system of purposeful work of preparation of children of preschool age to training at school.

The Yakut people have the original traditions of dialogue. Education of children of preschool age at Yakuts, their introduction in dialogue, in a social circle also have the traditions which we conditionally name traditions «кэпсиэ». «Кэпсээ» («кэпсиэ») – the usual form of a greeting at Yakuts [3; p. 220]. «Кэпсэтинньэн» – loving to talk, talkative, garrulous; кэпсэтигэн о5о – the talkative child [3; p. 220].

In national pedagogics the great attention is given to the relation. Researcher V.D. Shadrikov notices that the greatest number of the concepts characterising the person, are connected with the qualities defining his relation to other people, to good and harm [4; p.193].

The relation is an important point of development of culture of speech dialogue of children. The RELATION (ОТНОШЕНИЕ) – the prefix ОТ means branch from himself; that the person carries behind the soul (trust, fidelity; confidence, conviction), always was an indicator of level of internal culture of the carrier. In this sense dialogue is a dialogue of cultures under the relation to each other and another. People distinguish set of kinds of relations and mutual relations of people: educational relations, social relations, professional relations, etc.

The relation is a basis for development of culture of speech dialogue of children. The given development can have some levels:

Firstly, in the course of dialogue, curiosity should appear both at the child, and at the interlocutor. Curiosity – is situational interest to something [5; p. 191].

Secondly, the characteristic party of development of culture of speech dialogue is inquisitiveness. Inquisitiveness – is the line of the person characterised by the active informative relation to the validity [5; p. 191]. That is, in the course of dialogue the child is able to interest the interlocutor in the conversation maintenance.

Thirdly, the characteristic party is the requirement. Somebody who communicates with the child has a requirement defined as need in something objectively necessary, internal stimulus of activity of the person [1; p. 293].

The highest level of development of communicative qualities of the person is management of motivation. The motivation – the relation to the reasons and the factors operating behaviour of separately taken person and also supports their behaviour in the present state of affairs [6; p. 261]. But, this management has no direct character.

Thus, correct use of means of nonverbal speech, lexicon enrichment, construction of the various moments of social relations, pedagogical work with parents and teachers of preschool educational establishment act as conditions of development of culture of speech dialogue of children of preschool age . These conditions, in turn, are a basis for positive use of traditions of the people of Sakha. It is possible to carry to such traditions:

– conversation in not clear language for adults;

– conversation about that is good and about that is bad, giving morals basis;

– conversation of the child with the adult, giving a consciousness basis;

– conversation, conversation on inhabitancy, abilities to live of the child;

– conversation, dialogue of the child with the neighbours, giving a basis of responsibility for the words, reception and information transfer;

– conversation on something with the art description;

– conversation, dialogue with the analysis;

– exact transfer of sense of a subject, a theme of conversation with the correct use of words.

Various forms of work with children of different age can have important value for awakening of curiosity of children to language, increases of their interest to word creation in the conditions of a kindergarten.

The concept «ethnocultural space» is extremely extensive. It is considered that it is a complex combining a socially-psychological climate of inhabitancy of the individual, social and economic, natural, climatic, ecological, social conditions of his life and national-national traditions of education, culture, that is, set of all factors influencing process of education. Ethnocultural space – educational space where there is an interaction, mutual relation of adults and children.

Socially-pedagogical possibilities of ethnocultural space can have optimum influence on education and rising generation development. Dialogues with people of advanced age, elders – carriers of traditions of the people, social control of a generality over behaviour of people, organic communication with the nature, etc. are the most significant characteristics of the organisation of educational activity in modern conditions of the Yakut rural ethnocultural space.

In uniform ethnocultural space of rural society the special role in development of culture of speech dialogue of children belongs to subjects of educational process. With reference to the Yakut countryside subjects of the educational process, making the greatest impact both on development of culture of dialogue, and on all process of formation of the person of the child are: firstly – a family, relatives, neighbours; secondly, tutors, contemporaries, friends; thirdly, the state and nonstate establishments and the village organisations; fourthly, to number of subjects of the educational process, making direct or indirect impact on the person of the growing up person, administrative and managerial structures at area and village level can be quite carried. Any of the given subjects of educational process separately cannot render that optimum pedagogical influence on the child, as at the co-ordinated educational activity.

Now kindergarten as the state educational institution is urged to form the pupils the self-sufficient persons, capable to communicate with people of different age, a nationality.

The Yakut family as traditionally settled structure of a generality of the people living together, connected by related bonds and conducting the general economy, bears ethnic characteristics of traditional system of family education. In modern conditions of the Yakut countryside development of educational potential of a family on use of traditional methods, technologies of dialogue in development of the standard of speech of children is necessary.

References

1. Preschool education: the Dictionary of terms / N.A. Vinogradova. – M: the Airis-press, 2005.

2. The Conceptually-terminological Russian-Yakut dictionary on psychology: in 4 p. – P. 4/ Under the editorship of A.P. Okoneshnikova. – Yakutsk, 1994.

3. Yakut-Russian dictionary / Under the editorship of Sleptsov P.A. – M.: Publishing house «Soviet encyclopaedia», 1972. – M.: the Soviet encyclopaedia, 1972. – 608p.

4. Shadrikov V.D. Origin of humanity. – M., 2001.

5. Mizherikov V.A. Dictionary- directory on pedagogics. – M.: Creative centre «Sphere», 2004.

6. Nemov R.S. Psychology: Dictionary-directory: in 2 p. – P. 2. – M., 2003.

Materials of Conferences

THE KAZAKHSTAN HIGHER SCHOOL REFORMATION PRIORITIES UNDER THE BOLOGNESE PROCESS CONDITIONS

Amreyeva T.M., Kalyenov G.K., Smagulova G.M.

The National Center for the Education Quality Assessment of the Education & Science Department of the Republic of Kazakhstan, Astana, e-mail: smagulova@gmail.com

The reforms, having carried out in the Kazakhstan higher education system in the recent years, have been realizing, for the purpose of the further integration in the world educational space and the educational standards with the international requirements and the demands compliance providing [1].

Thus, for several years, the purposeful work on the conditions provision for the Bolognese process accession by the Republic higher education system has been undertaken. In the end, the Kazakhstan Republic has been become the 47-th country, having accepted into the Bolognese club at **March, 11, 2010**.

Then, it should be mentioned, the Kazakhstan, one from the first CIS States and the Powers, has signed and has ratified the Lisbon Convention by its qualifications recognition, having related to the higher education just in the European region, still in 1997. It has actively been studied the European powers' and the countries' experience, the most positive processes of which, have already been adapted to the Kazakhstan practice in the Republic. So the higher school educational reforms have already been resulted in the Kazakhstan Institutes of higher education, the Kazakhstan Academies, the Kazakhstan Colleges, the Kazakhstan Universities and the Kazakhstan Scientific Centers strategies, their internal and the domestic structure, the teaching and the educational process management and the organization principles transformation.

The Popular, Comparable Qualifications Introduction in the field of the higher education became one from the most necessary steps on the educational systems harmonization, having started since 2004, when MOH KR has approved the academic undergraduate and the academic graduate specialities Classifier [2], having provided its comparability with *The International Standard Classification of the Education – ISCO, having accepted by the UNESCO.* The higher and the postgraduate education Classifier has been put into the force since September 2009, in correspondence with the educational levels, having accepted by all the countries and the powers participants of the Bolognese Agreement: the undergraduate school, the magistracies, the doctoral candidacy. So, the Classifier Specialities' Groups are quite identical to the ISCO educational fields. The next task solution – is **the transfer to the higher education three – stage system** (e.g. the undergraduate studies – the magistrates – the doctoral candidacy) is directed at all the teaching and learning levels succession management providing, the educational quality improvement and the further perfection, at the expense of the educational programs excessive content duplication removal, and the educational and the teaching process scientific component strengthening. So, since 1994, the baccalaureate educational programs have being realized in the Kazakhstan, and the magistrates – in 1996. Thus, the pilot project implementation on the domestic Philosophy Doctors (PhD) preparation has being begun, since 2005.

The credit units unified system introduction, that is the **teaching credit system** for the educational programs comparability providing and the students' and the learners' mobility principle realization, is the one from the Bolognese Agreement's conditions. At present, the teaching credit system has been completely introduced in the Kazakhstan. After all, the main principles and the major instruments of this system have already been accepted by the academic, the administrative, the managerial personnel, and the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers students and the learners. So, it is also observed the deep and the successive PPS participation just in the courses transformation, the educational programs and the dialogue with the students' and the learners' organization.

The further integration into the world educational space is the one from the main targets of the teaching and the training credit technology introduction in the Kazakhstan, in correspondence with the accepted international obligations and the assumed international liabilities.

The necessary documents acknowledgement of the challenge solution on the education, the educational standards and the programs unification, with due regard for the world tendencies, the sequence, the students' and the learners' educational and the training activity step-by-step procedure, the academic freedom, and also the curricula and the study programs variability are the credit technology universally recognized advantages and the generally accepted virtues.

The 62 Kazakhstan higher education Institutions, including the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers the reports analysis on the teaching and the training credit technology introduction, the final results of which were given below, had been carried out by the education quality assessment National Center.

The КСО Introduction Stages in the Kazakhstan Institutes of Higher Education, the Academies, the Colleges, the Universities and the Scientific Centers. The Education and the Science Department has recommended the leading Republic

Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers to begin the first course students' teaching and the first course learners' training the academic economic specialities, on the basis of the teaching and the training credit technology, since 1, September, 2003 г.

So, the main part of the Kazakhstan Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers have already been transferred all the academic specialities' students and the learners for the **КСО** in the period from 2003 till 2007 – es. At this given moment, the teaching and the training are being carried out by the academic credits system in all the country's Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers, and also this system's main instruments have already been accepted by the academic, the administrative, and the managerial personnel, and by the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers students and the learners.

The special credits system introduction mechanisms by the ECTS type have being developed, since 2009, by the on the RK Education and the Science Department commission.

The КСО Legal and Normatively Basis Formation. The much work on the legal and normatively basis formation of the teaching and the learning credit technology, having regulated the basis requirements and the major demands on the teaching and the educational process organization and the conduction just in the framework of the teaching and the leaning credit technology, has been done and successively carried out by the Education and the Science Department.

The teaching and the training credit technology Rules, before this period, having realized in the experiment regime, have been developed in 2005.

In accordance with the RK «On the Education» Law [1]:

- «The teaching and the educational process organization Rules on the credit technology» have been approved;
- «The Instructive Letter on the teaching and the educational process organization in the Republic higher educational Institutions on the teaching and the training credit technology» has been developed;
- «The progress in studies, the intermediate and the final assessment, having learnt in the higher educational Institutions current inspection conduction standard rules» have been approved;
- The 19 standard regulations have been developed, in accordance with the КСО and also the other normative legal documents.

The Structural Changes in the Institutes of Higher Education, the Academies, the Colleges, the Universities and the Scientific Centers. The teaching and the training credit technology introduction in the Kazakhstan Institutes of higher education, the Kazakhstan Academies, the Kazakhstan Colleges, the Kazakhstan Universities and the Kazakhstan Scientific Centers has considerably been changed the University's structural units the main functions, the major authorities, and also the responsibility. Thus, the Universities main structures' reorganization has been carried out, for the purposes of the credit – hours system improvement and the further perfection in the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers.

So, the new structural unit – the registration Department has been created just in all the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers, in accordance with Rules. The registration Department main task is being consisted in the students' and the learners' assistance in the main target achievement – the Degree receiving on the chosen speciality.

The Teaching and the Training Process Planning and Its Organization. The teaching and the training credit technology introduction has been demanded the main Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers documents considerable changes:

- the education State obligatory for all standards;
- the standard educational programs.

So, the State obligatory standards development of the higher and the postgraduate education is being carried out by all the academic specialities in the basic Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers, in accordance with the teaching and the training credit technology demands. After all, some generations of the education State obligatory for all standards by the baccalaureate and the magistracy academic specialities on the teaching and the training credit technology have already been developed.

For the first time, the doctoral candidacy academic specialities have already been introduced into the higher and the postgraduate education academic specialities Classifier in 2009.

The preparation provision to all types of the studies and the occupations by the necessary sources of the information receiving on the paper media and the electronic carriers (e.g. UMKD and the syllabi, the test items and the tasks packages (e.g. the electronic case), the reference-informational kits and the educational and the training manuals for the teaching and the training organization with the active forms and the methods use, the studies organization new methods have been widely involved in them – the video – lectures, the video – seminars, the round tables, the interaction virtual forms application at the laboratory and the practical types of the studies and the others) has been become one from the most important and the most significant students' and the learners' teaching and the learning organization moments.

The КСО Information Support. In the last and the current years, the information support in the Institutes of higher education, the Academies, the

Colleges, the Universities and the Scientific Centers has been made its considerably break – through. So, the information technologies application, as in the teaching and the educational process, well as in the Institute of higher education, the Academy, the College, the University and the Scientific Center management, on the whole, is being permitted to be raised the workers' activity efficiency, and also to be increased the production information exchange rate. At the given moment, all the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers have their own cites, where the complete information on the Institute of higher education, the Academy, the College, the University and the Scientific Center activity, and also the full access to the information on the student's and the learner's current progress in his studies and etc., have been reflected. Moreover, the TV – technologies application in the educational and the teaching process, the electronic reading hall creation, the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers educational portal formation, the virtual laboratories with the access – Internet, the multimedia classes, having equipped with the projectors, and also with the interactive blackboards, are being practiced.

The Universities are being used the analytical – informationally management systems, and the educational and the teaching process control for the management mechanism improvement and the further perfection and the educational activity control, on the basis of the automated information systems, such as «Platon», «PROFITSOFT», «Lotus Notes», the academic studies timetable scheduling blocks and the others.

The Progress in Studies Dynamics through the KCO Transfer All the Years. So, with every academic and the school year, it is being observed the students' and the learners' absolute progress in their studies rise in all the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers. First of all, this is being connected with the fact, that the mark – rating form of the students' and the learners' progress in their studies control is being permitted to be carried out the continuous monitoring for the student's and the learner's activity during the term and, more exactly, to be differentiated the mark, depending on the acquired knowledge and the skills level. This is also being contributed to the students' and the learners' regular and the purposeful independent work provision on the educational program mastering and the training program learning, to the uniform load, and also it is being given the progress in their studies constant control possibility by the students and the learners, the teachers and the lecturers themselves, and also to the teaching and the training quality rise, and to the students' and the learners' knowledge strength.

By some Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers data, the most stable per cent of the progress in their studies is at the students and the learners, having studied by the State educational grants (e.g. from 88,4 up to 100%), for all this, the biggest per cent of the non – achievers and the underachievers from the given category – these are the students and the learners, having learnt on the fee and the payment basis.

Among the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers opinion, and there are the insignificant reductions rate, – this has been resulted in the knowledge control system quite new technologies introduction, in the teaching and the educational process complete transparency, in the demands increase, in the examinations passing in the writing form introduction.

The Students' and the Learners' Educational Achievements Control Forms and the Procedures. For the students' and the learners' educational achievements inspection have already been provided the students' and the learners' knowledge control following types and the forms:

- the current control and the inspection;
- the foreign control and the inspection;
- the final control and the inspection.

Thus, all the control and the inspection types, including the final one, are quite able to be carried out, as in the traditional (e.g. the oral examination), well as in the innovation (e.g. the testing, the discussion sessions and the meetings and the others) forms. On the whole, the computer testing, which is being permitted to be tested a great number of the users, and it is being helped the following functions: the data registration on the tested peoples; the tasks (e.g. the tests) distribution; the tests and the answers variants, the results assessment recording into the data base – is the final control and the inspection form in many Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers.

So, the students' and the learners' educational achievements recording will be permitted at all the stages:

- firstly, to be given the quite right assessment to the students' and the learners' mastering level by the educational programs;
- secondly, to be carried out the systematic recording of the received knowledge quality and, that is very significant, by the skills (e.g. the home made control and the inspection) in the process of the educational programs mastering;
- thirdly, to be provided the procedures transparency, having carried out the students' and the learners' preparation quality marks at all the control and the inspection stages;
- fourthly, to be given the objective quality assessment of the students' and the learners' educational – occupationally programs mastering, in accordance with the GOSO's demands.

So, the student's and the learner's total assessment by the academic discipline is being formed, by

means of the points and the marks summing up for the foreign and the final knowledge controls and the inspections, having received during the whole term. For all this, the obligatory demand of the student's and the learner's interim certification completeness on the academic discipline is the quite positive mark by the final examination.

On the whole, it is quite significantly to be noted that the students' and the learners' educational achievements assessment accepted system is being permitted the following:

- to be revealed the educational and the teaching process organization and the control correspondence degree by the specialists' preparation and the experts' training modern scientific requirements;
- to be received the necessary information on the educational and the teaching process real state;
- to be evaluate the teacher's and the lecturer's activity final results;
- to be stimulated the teacher's and the lecturer's active pedagogical – scientifically activity;
- to be formulated the students' and the learners' motivation to the future occupational activity;
- to be regulated the educational and the teaching process course and its further progress;
- to be created the systematization, the objectivity, and the transparency conditions of the students' and the learners' knowledge assessment and the performance score;
- to be generalized the new educational technology introduction experience.

The Academic Mobility is being promoted the higher education quality improvement and the further perfection, the scientific researches efficiency rise, the management system improvement and the further perfection, the external and the internal integration ties establishment in the sphere of the higher education.

The academic mobility is being realized in the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers through the academic exchanges and the interchanges with the other Institutes of higher education, the other Academies, the other Colleges, the other Universities and the other Scientific Centers, in accordance with the agreements between the partners – the Institutes of higher education, the partners – the Academies, the partners – the Colleges, the partners – the Universities and the partners – the Scientific Centers, between the contracts with the international organizations, the foundations and the funds, and also the other organizations.

Thus, for the question «The Academic Mobility: (there is, no, what is it)?» from the 62 Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers, they have been answered: there is – the 16 Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers; at the realization stage (there is, but they have not been indicated the quantity) – the 41 Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers; they have not been answered – the 5 Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers.

So, the Kazakhstan 62 Institutes of higher education, the Kazakhstan Academies, the Kazakhstan Colleges, the Kazakhstan Universities and the Kazakhstan Scientific Centers data analysis has already been shown, that the academic mobility has been developed insufficiently in the Kazakhstan, the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers are not being created the special conditions in that form, as they are in the Europe. Thus, the internal mobility is quite absent, absolutely, in the Kazakhstan. So, nowadays, the internal mobility support special mechanisms and the corresponding programs have not yet been completely developed.

In the end, the academic mobility development main barriers and the major obstacles in the Kazakhstan are the following:

- the organizational challenges, that is, the student's and the learner's accommodation in the hostel, the new conditions creation at the profile academic discipline study;
- the study periods recognition issues;
- the students' and the learners' and Institutes' of higher education, the Academies', the Colleges', the Universities' and the Scientific Centers' low level motivation;
- the special financing absence, that is, the defined and the specified fund, having directed at the further mobility development.

So, it is necessary widely to be developed the academic mobility inside the country, to be given the possibility the students and the learners to be studied the separate academic disciplines in the other Institutes of higher education, the other Academies, the other Colleges, the other Universities and the other Scientific Centers, which, without fail, must be re – passed, and be given a re – credit. The students' and the learners' teaching and the training or the special academic disciplines insufficiently courses' study in the profile Institutes of higher education, the profile Academies, the profile Colleges, the profile Universities and the profile Scientific Centers to be put into their practice by the private Institutes of higher education, the private Academies, the private Colleges, the private Universities and the private Scientific Centers.

The Transfer and the Credits' Re-Passing European System Introduction (ECTS). The main regulations of the teaching and the training credit technology, having introduced in the Kazakhstan, have already been borrowed just from the American system, and they are quite differed from the ECTS system, having adopted in the Europe. In this connection, the much active work is being carried out by the European Credits Transfer System

(ECTS) introduction, which must be functioned simultaneously with the National Credit System (NCS). On this purpose, the working group has already been created on «The Credit Units System Development on the Credit Technology, by the European Credits Transfer System (ECTS) Type in the Kazakhstan Republic».

At the given moment, the preparatory work has already been carried out and the complete approval and the approbation on the transfer system and the ECTS credits accumulation introduction in the Kazakhstan, which must be promoted the students' and the learners' mobility development, their study periods recognition just in the foreign Institutes of higher education, the foreign Academies, the foreign Colleges, the foreign Universities and the foreign Scientific Centers, and also to be created the main and the necessary possibilities for the joint educational projects realization with the European Union's (EU) countries.

So, the regional educational and the training seminars have already been carried out, on the basis of the 18 Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers by the National Center of the education quality assessment, in accordance with «The Credit Points System Introduction on the Credit Technology by the ECTS Type» project in the 11 towns and the cities of the country. So, the 68 Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers representatives have taken their participation at all these seminars work, and, moreover, the listeners' total number has been 1,262 at them.

Thus, it is necessary to be noted, that the credit technology in the Kazakhstan is being used only, as the transfer one, having analyzed all the Institutes of higher education, the Academies, the Colleges, the Universities and the Scientific Centers data. So, all the educational programs must be estimated in the credits: the previous ones, the additional ones, the certification ones, the retraining ones, the additional training undergoing, the advance training level and etc., on the purpose for the storage system would be functioned in our country.

The perspectives:

«The State Program of the Education Development of the KR for the 2011 – 2020 – es» has already been approved by the President's Decree of the KR, dated from December, 07, 2010, № 1118 [3].

Among the main challenges of the higher education in «The State Program of the Education Development of the Kazakhstan Republic (KR) for the 2011 – 2020 – es» have already been singled out and emphasized the following:

– the further integration in the world – wide educational space;

– the higher education quality high level achievement, having satisfied the labor market needs, the country's innovation – industrially challenges, the personality, and also corresponding to the best world – wide practices in the field of the education;

– the teaching and the training system functioning provision during the whole human life;

– the education, the science and the production integration provision, the necessary conditions creation for the intellectual property and the technologies products commercialization.

Then, the highly skilled and highly qualified scientific and the pedagogical – scientifically staves preparation and the further training.

The Kazakhstan joining to the Bolognese process is being directed at the above – indicated tasks and the challenges achievement, in the framework of which the united educational space is being formed, the educational systems harmonization is being carried out, having provided the students' and the learners' comparability, transparence in the education, and also their mobility.

References

1. The Kazakhstan Republic Law // On the Education. – 2007. – № 319-III KRL.

2. The Baccalaureate and the Magistrate Specialities Classifier. – SC KR 08-2004, dated from July, 1, 2004.

3. The State Program of the Education Development of the Kazakhstan Republic for the 2011 – 2020 – es // The KR President's Decree, dated from December, 07. – 2010. – № 1118.

The work is submitted to the International Scientific Conference «Problems of the international integration of national educational standards», Russia-France (Moscow-Paris), 18-25th March 2011, came to the editorial office on 15.03.2011.

THE PROBLEMS OF CORRESPONDENCE COURSE AND THE WAY OF THEIR DECISION

Avdeuk O.A., Aseyeva E.N.

The Volgograd state technical university, Volgograd, e-mail: oxal2@mail.ru

The System of higher education and training of highest-qualification level specialists within it define the level of economical and social development of modern society. Nowadays the problem of lower quality of extramural education and the ability of its existence is being discussed.

From our point of view, extramural education has both advantages and disadvantages. The advantages would be: extramural education plays important social role – it is one of the means of providing social justice in the society – the possibility of obtaining higher education regardless of location, circs, nationality, and, sometimes, of health condition; the combination of educational and professional activity in accordance with specialty provides for the development of a number of specialist's personal characteristics such as: the ability to correlate theory and practice, the ability to detect the most common trends of the development of the society, science, and technics in his area of knowledge; mo-

tives for students to join the extramural courses are usually determined professionally; the communication between extramural students and their tutors becomes mutually-enriching, especially on higher courses, as feedback between the educational institution employee and a member of real production takes place; governmental spending on education of extramural student are 2-3 times less, that those of the full-time student.

Along with that an organization of extramural education form has its disadvantages: the ability to communicate directly with your tutor is limited by two-session-a-year system; in a number of cases – lack of special educational literature, oriented for a large volume of student's individual work; the lack of self-organization and individual work skills; insufficient degree of national computerization to introduce modern methods of distant education, especially in locations that are remote from regional centres.

A presence of the described disadvantages does not undermine the need for extramural education form of Volgograd State Technical University (VolgSTU) matriculants, that allow s us to support those who think that extramural education should not be abandoned, and provide its qualitative implementation, new work methods, and knowledge control.

In order to increase the quality of extramural education within our educational institution the education methods [1, 2] that are aimed for more effective individual work of students in both inter-session period and audience work period and interim knowledge examination. Considering the described disadvantages of extramural education form, work with students within the «Calculative Technics» and «Descriptive Geometry» departments is organized according to the following scheme: all contact phone numbers and addresses are placed on a special website that is organized within the University in order to sustain feedback with leading tutors; approaches to self-organization methods have been developed according to different social and material status and location of students, that imply both traditional(educative literature on paper data carriers) and modern forms. Digital educational methodological complexes (DEMC) were developed by deprtment's author collectives, that contain course programmes, conspectus and lection presentations, methodological recommendations for practical, laboratory, and control works, a list of recommended literature, and also a set of various difficulty tests for control and self-control of students knowledge in his discipline. These educational-methodological are provided with step-by-step instructions and maximum number of illustrations. An access to DEMCs can be obtained in file storage on the website.

As shown by practice, implementation of this method led to the increase in qualitative level of material mastering. Thus, the quality and control of extramural education should be increased instead of its abandoning.

References

1. Aleksandrina A.Y. Relization of educative activity in LMS "MOODLE" in order to support traditional education forms / A.Y. Aleksandrina, E.N. Aseyeva // Volgograd State Technical University: inter-institutional anthology of scientific articles. – Volgograd, 2009 (Series New Educational Systems and Technologies of higher educational institution work technologies. Chapter 10, Ed. 6). – №6 VolgSTU. – P. 12-14.

2. Avdeyuk O.A. Methods of organization and quality control of extramural students individual work / O.A Avdeyuk, A.V. Krochalev, K.V. Prichodkov, A.N. Savkin // Volgograd State Technical University: inter-institutional anthology of scientific articles. – Volgograd, 2010 (Series New Educational Systems and Technologies of higher educational institution work technologies. Ed. 7). – №8(86) VolgSTU. – P. 13-15.

The work is submitted to the International Scientific Conference «Actual problems of science and education», Cuba (Varadero), 20-31 March 2011, came to the editorial office on 02.02.2011.

SEMANTIC FORMING APPROACH TO THE DEVELOPMENT OF PERSONALITY IN THE SPIRITUAL MORAL SPHERE

Baisheva M.I.

North-Eastern Federal university named after M.K. Ammosov, Yakutsk, e-mail: byuv@mail.ru

All cataclysms occurring in spiritually-moral sphere of a modern society, confirm inevitability of transition to a personal-semantic paradigm of education. Probably, today it is necessary to staticize and comprehend all arsenal of ideas, methods, technologies of semantic formation and developments of intrinsic bases of the person, proved in domestic pedagogics for creation of real dynamic conditions of prompting of the person to self-development and self-creation.

Semantic formation is the most effective at integration of potential of modern education with Cultural creating and human creating essence of traditional culture of education. In the course of the development the traditional culture of education of children in Russia was issued as the greatest spiritually-moral value of the people.

At the time of K.D. Ushinsky in reading book of an initial course of domestic literature there was a section of the spiritually-moral reading, which main objective – education of love to native sources. On K.D. Ushinsky's deep belief, education appointment – to grow up the person having a specific goal in life. The analysis of works of K.D. Ushinsky allows to conclude that one of the greatest means Semantic forming developments of the person is the people folklore.

Considering that oral national creativity as the ethnopedagogical phenomenon and a source of national values demands more substantial approaches to studying and a reflection of values, we have made an attempt to revive the forgotten tradition of domestic literature and have solved in modern quality to rethink process of «spiritually-moral reading» children in educational institutions of our republic.

In a context of a humanization of pedagogical process essentially important positions of model of «spiritually-moral reading» were: not assimilation and not accommodation, and integration into persons original national and universal as comprehension of own cultural advantage and advantage of others, an openness and creativity to the world; support of subject-matter of the child at all stages of activity, his Semantic forming activity in self-development and Destiny building, development of universal infinity, «an exit for limits of», openesses to the world; Maintenance of Cultural conformity of education and development of the child when cultural values act: on the one hand, as set of achievements of a society, with another – as a source of creative transformation of the person; in this context the understanding of the valuable maintenance of folklore is considered by the child as a reference point of creating life and mastering by values in own «a reflective key» (V.M. Rozin); the model end result is an emotionally-moral experience of values of a fairy tale, bylinas, legends, legends etc. by the child,: understanding of his participation in destiny of a family, the people, mankind; destiny of native places, the native land and comprehension within the possibilities of own responsibility and at the same time the security in each of them;

Spiritually-moral reading of national literature, on the one hand, staticizes an openness of the child to the world, his valuable-semantic relation to him, and with another, urges on parents, teachers to Semantic forming development of the person of children. Hence, the spiritually-humanistic person can be developed only on the basis of amplification of ways, ascension ways to values-ideals and actualization of an is subjective-personal component of value. Ignoring of an is subjective-personal component of intrinsic bases of the person leads to a spiritual impoverishment.

Special sensuality is shown in the process of measurement, an active projection, interpretation of values, identification of with the creating person at the child. He finds out own uniqueness, connectivity, responsibility to destiny own both parents; the maintenance and technology of work with children provide developing influence of values on consciousness of children and promote psychoemotional satisfaction, development of steady emotionally-valuable displays, creative-informative activity, humane style of behavior.

The preschool age is the sensitive period for formation of spiritually-humanistic bases of the person, comprehension of own «connectivity» (N.E. Shchurkova) with destiny of a family, the native people and as a whole mankind.

In researches of domestic psychologists it is established, what exactly ability and requirement to operate at preschool age at children for the first time are shown, being guided by «internal ethical instances». On L.S. Vygotsky, this reference point grows out of mastering of moral requirements of a society. Occurrence of internal ethical instances testifies that external requirements turn in internal, which kids carry out voluntarily, irrespective of control of adults show them to another and to himself.

In a context of a studied problem V.A. Petrovsky, S.L. Rubinshtejna, V.E. Frankla's views are close to us, etc., confirming about infinity of the person. V.E. Frankla's statement: «to be the person – means to fall outside the limits itself. I would tell that the essence of human existence consists in his transcendo» speaks about necessity of enrichment of some approaches to studying of intrinsic properties of the person, allowing to be a social and spiritual being.

Creation of pedagogical conditions of Semantic forming formations of children of preschool age should correspond to age of the child, subculture of the childhood and to be based on following ideas:

– Development of intrinsic valuable potential of the child and if isn't present by the end of preschool age it has quite often an effect (M.I. Lisina, N.I. Not, S.L. Rubinshtejn, etc.) should become a leading line of development of the person till the end of preschool age.

– The major aspect of sense of the childhood in human culture consists in opening himself and another as person, in finding of a measure of human in the person (социокультурном, spiritual formation) that underlies development of individual; children in 5-6 years (62% of children) prefer conversations on personal themes in dialogue with adults, i.e. «in process of a growing preschool children pass to contacts of the profound moral-personal plan» (Z.M. Boguslavskaya, A.G. Ruzskaya, E.O. Smirnova, etc.).

– Dialogical interaction is natural quality of the child that dialogue along with game is «this element in which lives and develops the child» (F. Frebel); the organization of philosophic conversation, under N.E. Shchurkova's statement, this education of ability to generalizations that the child could see the life phenomena behind the fact, behind the phenomenon – laws, and behind laws to distinguish bases of human life.

It is necessary to underline that today educational activity in educationtion establishments, should be considered as construction process of semantic vital concepts of the person and an ascension in «spiritual-I». Thus the education system which is institute of the state, responsible for formation and development of the person, should be improved, being supplemented with the innovative maintenance and being enriched with the technology, focusing on semantic formation.

The work is submitted to the International Scientific Conference «Actual problems of science and education», Cuba (Varadero), 20-31 March 2011, came to the editorial office on 27.01.2011

THE EDUCATION CONTEMPORARY TARGETS AND THE EDUCATIONAL ACTIVITY ORGANIZATION DIDACTIC PRINCIPLES AT THE MATHEMATICS LESSONS

Bamatova J.K.

The Daghestani State Pedagogical University, Makhachkala, e-mail: bamatova77@mail.ru

The rapid social transformations, which our whole society is being survived in the last decades, have cardinally and drastically been changed not only the people's life conditions, but and the whole educational situation. So, in this connection, the education new conception creation object, having reflected, as the society's interests, well as the every single person's interests, has been become the acutely urgent and the pressing one.

Thus, in the last years, the new comprehension of the education main goal has been emerged in the society: *the readiness for the self – development* formation, having provided the personality's integration into the national and the world – wide cultures.

So, this target realization is being demanded the challenges whole complex performance and the implementation, among which the main ones are the following:

1) *the teaching and the training activity* – is the ability to be set up the goals, to be organized their activity for their achievement, and also to be evaluated their actions results;

2) *the personality qualities formation* – are the mind, the will, the feelings and the emotions, the creative abilities, and the activity cognitive motives and the causes;

3) *the world – wide picture formation*, which is the adequate to the knowledge modern level and to the educational program level.

So, it should to be emphasized, that the orientation for the developing teaching and the training *is not meant the refusal from the knowledge, the abilities and the skills formation at all,* without which it is quite impossible the personality's self – determination, and also its further self – realization.

That is why, the didactic system after Ya.A. Komensky, having absorbed the centuries – long and the ancient traditions of the knowledge transfer system on the world to the pupils and to the students in itself, and today, it has been made up the methodological basis, which is so called «the traditional» school:

- The *didactic* principles – are the visualization and the demonstrativeness, the accessibility and the availability, the scientific content, character and approach, the systematization and the systematicness, and the consciousness of the teaching material mastering.
- *The teaching method* – is the illustrative – explanatorily one.
- *The teaching form* – is the set – formly one.

However, it is quite obvious to everyone, that the existing didactic system, not having exhausted the whole its significance, at the same time, is not being permitted efficiently to be carried out the developing education function. In the last years, the quite new didactic demands and the requirements, which are being decided the contemporary educational objectives and the challenges, with due regard for the future requests, have already been formed in the works of L.V. Zankov, V.V. Davydov, P.Ya. Galperin, and, also in the works of many other teachers – the scientists, the teachers – the scholars, and the practitioners. So, the main from them are the following:

1. The Principle of Activity.

The main conclusion of the pedagogical – psychologically researches and the investigations of the last years is being concluded in the fact, that *the pupil's personality formation and his advancement and the progression in the further development is being carried out not then, when he is being perceived the ready and the finished knowledge, but in the process of his own activity, having directed at the quite new knowledge «discovery» made by him.*

Thus, *the child's inclusion just into the cognitive – educational activity* is the main mechanism of the developing teaching and the training targets and the objects realization. Herein, *and the principle of activity* is being concluded. So, the teaching and the training, having realized the principle of activity, is being called the activity approach.

2. The Principle of the Integral Presentation on the World.

As far back as, Ya.A. Komensky has noted, that the phenomena are necessary to be studied in the mutual connection, but not singly and separately (e.g. not as «the firewood heap»). In our time, this thesis is being acquired even more importance and greater significance. So, it is meant, that *the generalized, and the integral presentation on the world (e.g. on the nature – on the society – on himself), on the every science role and its place in the sciences' system must be formed at the child*. It is quite naturally, that, for all this, the knowledge, having formed at the pupils and at the students, must be reflected the scientific knowledge language and the structure.

So, the principle of the world's unified picture in the activity approach is being closely connected with the scientific content, character and approach didactic principle just in the traditional system, but it is rather much deeper than it. Here, the matter is not simply on the world's scientific picture formation, but also and on the pupils' and the students' personality relation to the received knowledge, and, moreover, on *the ability and the skill to be used* them in their practical activity. For example, if what is at the issue is on the ecological knowledge, then the pupil and the student must *not simply to be known,* that it is no good and so gross to be plucked those or other flowers, to be left behind themselves the gar-

bage in the forest and in the woods and so on, *but to be taken their own solution* do not do that way.

3. The Principle of the Continuity.

The principle of the continuity *is quite meant the succession between all the teaching and the training stages at the methodology, the content and also the methods level*.

So, the succession idea also is not quite new for the pedagogics, however, still it is often being limited, by so called «the propaedeutics or the preliminary study», but it is not being decided systematically. So, the continuity challenge has already been acquired the special relevance and the urgency, in connection with the variative programs' appearance.

4. The Principle of the Minimax.

So, all the children are quite different and diverse, and each from them is being developed by his own pace. At the same time, the teaching and the training have been orientated upon the some average level in the mass school, which is too high for the poor knowledge children, and, it, moreover, is obviously insufficient for stronger knowledge ones. In its turn, this aspect is being slowed down the further development, as the strong knowledge children, well as the poor knowledge ones.

So, the 2-nd, the 4-th and so on levels are frequently being singled out, in order to be taken into consideration the pupils' and the students' individual peculiarities, and also their special features. However, the real levels in the class are exactly as much, as the children in it! Is it quite possible to be defined them all exactly? Besides, not to be mentioned on the fact, that practically it is quite difficult to be taken into consideration even the four levels – because you know, it is meant the 20 special preparations per a day for the teacher!

Thus, the final solution is quite simple: to be singled out only the two levels – *the maximum one,* having defined the children's nearest development zone, and also the necessary *minimum.* So, the minimax principle is being concluded in the following: *the school must be suggested the education content by the maximum level to the pupil and to the student, but the pupil and the student are being obliged to be mastered all this content by its minimum level*.

So, it is quite apparently, the minimax system is the optimal one for the individual approach realization, as this is *the self – regulating* system. The poor knowledge pupil and the student are being limited by the minimum, but the strong knowledge ones – will be taken everything, and they will go further. All the rest will be placed in the interval between these two levels, in accordance with all their own abilities and their own possibilities – eventually, they will be chosen their own level themselves, *by their own possible maximum.*

So, the work is being carried out at the difficulty high level, but *it is evaluated only the obligatory final result, and also the success*. Then, it will be permitted to be formed the setting for the success achievement, but not for the avoiding from the «poor» mark or the D grade, that is much more significant for the motivational sphere development.

5. The Principle of the Psychological Comfort.

The principle of the psychological comfort is being suggested *all the stress factors forming removal of the teaching and the learning process, as far as possible, such atmosphere creation, which is being unchained the children, and, in which they feel and make themselves «at home», as in the school, well as at the lesson.*

So, no progress in their study would not be given any benefit and the further final result, if they «are being involved and mixed up» in fear before the adult people, in the child personality suppression.

However, the psychological comfort is quite being necessary not only for the all knowledge mastering – the children's *physiological state* is being depended from this. Then, the adaptation to the specific conditions, the goodwill and the benevolence atmosphere creation will be permitted to be removed the tension and also the neuroses, having constantly destructed and ruined the children's *health.*

6. The Principle of the Variability.

Thus, the modern life is constantly being demanded *to be made the choice* skill from the man – from the goods, products, the wares choice, and the services selection up to the friends' choice, and also the course of life choices. The principle of the variability is being suggested the variability way of the thinking at the learners, the pupils, and the students, that is *the task solution different versions possibility comprehension*, *and also to be made the systematic sorting options and the variants skill.*

So, the learning, the teaching and the training, in which the principle of the variability is realized, is being removed fear at the learners, the pupils, and the students before the mistake, is being taught to be comprehended the misfortune not as the tragedy, but as the signal for its further correction. Such kind of approach to the challenges and the problems solution, especially in the very difficult situations, is so necessary, as well in the human life: do not to be lost heart, in the case of the failure, but to be sought and to be found the most constructive way.

From the other hand, the principle of the variability is being provided the teacher's right to the independence in the educational and the teaching literature, the academic and the reference books, the textbooks, the work's forms and the methods, their adaptation level just in the educational, the leaning and the teaching process. However, this kind of the right has been born also and the teacher's greater and the heavier responsibility for his activity final result – the teaching quality.

7. The Principle of the Creativity (the Creativeness).

The principle of the creativity is being supposed *the maximum orientation for the creative beginning in the children's learning, the educational, and the*

teaching activity, and also the creative activity their own experience acquisition by them.

So, the point is here not on the tasks' simple «concoctions» by the analogy, though and such kind of these tasks should to be welcomed in every possible way. Here, first of all, it is meant the ability formation at the learners, the pupils and the students independently to be found the solution, not having met the tasks before, the actions new methods independent «discovery» by them.

The ability to be created the new one, to be found the vital life challenges non – standard solution today has been become the integral constituent part of the every person's real vital life success. That is why, the creative abilities development is being acquired the general educational significance nowadays.

So, the above – described teaching, the learning and the training principles, having developed the traditional didactics ideas, are being integrated the quite useful and the non – conflicting ones among each other ideas just from the education new conceptions from the scientific and the research views' continuity positions. They are not being rejected, but *they* are *being continued and are being developed their traditional didactics,* in direction of the modern educational challenges solutions.

In reality, it is quite obviously, that the knowledge, which the child had been «discovered» by himself, visually for himself, accessibly and consciously was mastered by him. However, the child's inclusion and his entering into the activity, in contrast to the quite traditional visual teaching, the learning and the training, it is being activated his further thinking, and also it is being formed the readiness and the willingness for the self – development at him (e.g. after V.V. Davydov).

The teaching, the learning and the training, having realized the world's picture integrity principle, is being met requirements of the scientific content, character and approach, but, at the same time, it is being also realized and the quite new approaches, such as the education humanization and the humanitarization (e.g. after G.V. Dorofeev, A.A. Leontiev, L.V. Tarasov).

The minimax system efficiently is being promoted the personality qualities development, and also it is being formed the motivational sphere. Herein, the multi – level teaching challenge is being decided, which is being permitted to be promoted all the children's further development, as the knowledge strong ones, well as the knowledge weak ones (e.g. after L.V. Zankov).

The psychological comfort requirements are being provided the child's psychophysiological state recording and the registration, and it also is being promoted the children's cognitive interests development and their health maintenance and their preservation (L.V. Zankov, A.A. Leontiev, Sh.A. Amonashvili).

So, the continuity principle is being given the systemic character to the succession challenges solution (e.g. after N.Ya. Vilenkin, G.V. Dororfeev, V.N. Prosvirkin, V.F. Purkina).

The variability principle and the creativity principle are being reflected the most necessary conditions of the personality's successful integration into the modern social life.

Thus, the all above – listed didactic principles, to a certain extent, are quite *necessary and sufficient for the education modern purposes realization,* and today, they are already be able to be realized in the comprehensive secondary school.

At the same time, it should to be emphasized, that the didactic principles system formation is not quite able to be completed, because the life itself is being placed the significance accents, and, that is why, the every accent has already been justified by the given specific historical, the cultural, and the social application.

The work is submitted to the International Scientific Conference «Actual problems of science and education», Cuba (Varadero), 20-31 March 2011, came to the editorial office on 05.03.2011.

AN IMPROVEMENT OF THE RESORT PROFILE SPECIAL EDUCATION CENTRES EDUCATIVE SYSTEM VIA USAGE OF INTERNET RESOURCES

Kiseleva N.A.

Murmansk State Pedagogical University, Municipal Social Institution Secondary school №289, Murmansk, e-mail: nkiseleva@bk.ru

For a long time such question as «What is the main objective of the secondary school, educate or bring up a child?» has been studied within the pedagogic area and the society. The educative function was always considered to be major, though even J.A. Komenskiy stated: «disregard of the bringing up is death for people, families, countries, and all the world» [1]. Within the concept of the Russian society modernization the main principles that lead us to the necessity of considerable educative system changes were showed, the most important education objectives, that are in formation of civil responsibility and legal self-consciousness, spirituality and initiative culture, independence, tolerance, capabilities of the successful socialization and efficient adaption to the labor market conditions within pupils, are outlined. No doubt, that a developing society needs modern-educated, moral, creative people that will be able to take a responsible decision in a choice situation via its possible consequence prognosis, are able to co-operate and co-creativity, are mobile and responsible for themselves and fate of their country. The time itself formulates a vital problem – the personality formation, the creation of the conditions that are necessary for its successful realization. An opinion that an education system crisis is one of the serious problems of modern school is so wide-spread within pedagogues that

it can be disputed. Many scientists consider education to be an area of the people's activity that because of its goals is always under the crisis terms. A new generation upbringing forms a separate, specially-difficult problem that develops into a national task, while education is oriented on the successful fulfillment of the Single State Exam and the education quality increase, under which a number relationship between those pupil who pass the test with «excellent» and «good» and the total number of scholars. A question of the modern pupil and graduate upbringing remains open. On one side, a teenager must be protected from the aggressive permissiveness propaganda, immorality, and violence coming from Internet resources, Mass Media, trained to suitably live within a changing society, creating «afety islands» in various structures and projecting friendly social environment. On the other hand, a high school pupil has to find his life path, self-define in the world, formulate his views and positions. In these conditions an upbringing school functions that are supposed to create the condition to fulfill the main objective of a tutor – self-actualization of a growing man personality. The upbringing process must be undergone as a result of the cooperation, co-creativity of the like-minded persons (children, parents, pedagogues, social organization authorities) on different levels: class – school – family – city – region. As we speak of the objectives and educative methods refreshment, of reasonable upbringing environment conditions, we orient to a human science ideology that implies a realization of the liberty principle in practice. Scholars should not only obtain the ability of independent choice of educative, creative, practical activity, but also orient for the responsibility of its results. Open the area of the person self-preparation for the real life, its original ME – these are the strategic objective settings of the pedagogic high school pupils socialization and upbringing process maintainability. Why then we more and more often refer to the question of the Internet resources usage within the high school pupils' upbringing process? We think that the answer is obvious. As the social interrogation results show, almost 80 % of their free time teenagers spend in the Internet. And contrary to primary and secondary school students, high schools pupils pay great attention to the communication in network, choosing various social projects and network services as their ground. Separate children from it does not seem to be possible anymore. Then why don't pedagogues and parents use the existing, as they think, problem for the good and benefit of the growing generation upbringing? The educative process efficiency via usage of the informative-communicative technologies nowadays is directly conditioned by each practicing tutor ability to define actual educative objectives for a group, choose the most appropriate and optimal resources out of the variety of network forms such as blog, class site, forum, network service thematic group. It is important that a pedagogue should move together with pupils, thus directing their development, correcting the communication, raising their network communication cultural level. Predict the personality development results, implement an activity reflection in network; project educative situations; develop the content of the education process, mutual projects, that will unite students, parents, and pedagogues, orienting for the prior educative values, interests, and needs of the education process participants; choose technologies in accordance with the set goals and objectives; create conditions for the educative programs realization – these are the main components of new educative system. As one vector of the progressive upbringing sector development within the education system nowadays a universal and national, freedom and responsibility, individual and collective, natural and social values harmonization vector. Democratic essence of the new upbringing is in the providing a pupil with freedom to choose his individual development trajectory within the education process, creation of the favourable conditions for his self-realization I various types of socialy- and personally-significant activity, his preparation for taking independent decision in a moral choice situation for the universal values. Training scholars for cooperative network activity can prove successful only if a teenager has option to choose from or is provided with an example of such cooperation successful realization. And here a pedagogue must define himself with what it is reasonable to start the work organization using modern technologies. We must consider the fact that nowadays many grown-ups see Internet as an inevitable evil that has to be got along with and, if it can't be excluded out of our life, we should minimize the threats that our children might face. An important role within the Internet resources education process organization is played by the problem of the children' network safety providing. Under it grown-ups should clearly understand that all limits and filtration systems that are installed within educative institutions become absolutely helpless when children leave school. In this case, we think, a safe network behavior and network etiquette training will prove to be more useful as well as introduction of categories and themes that regard to work in the Internet into the subject courses. A great attention must be paid to these problems educative work and enlightening activity should be undergone with the pupils' parents. How can we form our work so that high school pupils get involved into creative, research, and social activity? Moreover, we do not only expect network to create a purpose for such activity, but a network area and network means that could support such activity. This is absolutely not a method to activate and attract students, when via information technologies a tutor can draw pupils' attention to the solution of a problem that later is studied and solved outside the network [2]. Nowadays network can supply us with all means of crea-

tive and research work. We only have to find and show these means to pedagogues, parents, and their children. Organizing educative work with high school pupils within a network service system, a tutor must consider the peculiarities of such interaction. Cooperative network activity must always develop, refresh, progress. Stops and delays must not be tolerated, otherwise that interest to this activity will drop and be extremely difficult to renew. However, it doesn't mean that all network activity must be realized and organized by a pedagogue himself. Here it is important to divide influence areas, provide pupils with more freedom to search and create, supporting and directing them. A pedagogue should never prevail and dominate. In network communication the ideas of mutual education, cooperation, and partnership within the tutor-scholar relations are realized in the best way. It is reasonable to involve parents to such high school pupils "network education" via creating and organizing cooperative projects, carrying out virtual consultations and arrangements. Such kind of activity, organized in the appropriate way will become new stage of the high school students' education development. The main thing is that nowadays it is almost impossible to avoid internet resources usage for the good of the growing generation. It would mean avoiding the children themselves, losing them, and that is absolutely intolerable. On the other hand, it is simply stupid to use traditional, fixed education methods without considering informative-communicative technologies. That is why our modern society is called informative and its main resources are information and knowledge. Informative technologies are exactly what is linked to a lot of processes within education, training and upbringing. And if more attention is paid to the usage of new information technologies within the education process, then it is obvious that upbringing innovative processes should be linked to it as well.

Innovations in educative system are formed by a number of components that are not only related to alterations in school material and technical equipment and organized administrative culture, but also to the tutor's readiness to work with new technologies. Innovation is the realization of new product, new technological process. A formation of high school pupils upbringing as an innovative process, using new forms and methods, informative-communication technologies, Internet network resources, when tutor follows a pupil, goes together with pupil, educating and upbringing him, preparing him for life in modern informative society – that is the future of the school upbringing. And when education process becomes developed and structured, the following advantages of the informative-communication technologies usage might be observed.

In order to organize educative-upbringing pupils' work it is urgent to orient for their free choice of communication form and Internet services, communication time, group partners. With such approach students will feel more liberate and emancipated, open for interaction and pedagogical influence. In such environment high school pupils feel comfortable, openly participate in discussions, express their views, thus forming the picture of their own ME. A transition from authority education methods to cooperative pedagogy is undergone easier with introduction of Internet technologies communication and Internet materials into the education process. The ideas of partnership in education are realized, the concepts of «new tutor» and «new pupil» are formed, and relations between them carry business character, thus providing for their mutual development. The usage of network services provides for effective formation of a number of communication skills (the ability to listen and hear, mastering non-material motivation methods in communication process, an ability to express one's thoughts clearly, an ability to establish constructive business and emotional contact and many others).

The formation of professional activity motivation with usage of the Internet provides high education, elf-definition, and self-consciousness results. We should outline that professional self-definition work with usage of Internet resources can be organized and carried out within a group of high school students on a relatively high level. Here we include not only the ability to form a knowledge on practically any profession (there is a lot of such information in network), but also the skill to take n interview while applying for a job, construct a resume and many others.

Within the usage of discussive forms that are really easier to carry out with help of Internet resources, high results not only in upbringing, but also in education will be achieved, in other words, the education process efficiency on the hole will increase dramatically. Here we see the realization of the "new modern school concept" that has usage of informative-communicative technologies and resources of the Internet network in its basis.

References

1. The great didactics / Y.A. Komenskiy. – M.: Ed. «Prosveschenie», 1959.

2. Social services Web 2.0 for tutors' help. / E.D. Patarkin. – M.: Intuit.ru, 2006. – 64 p. (educative-methodical textbook).

3. Russian education modernization concept up to 2010. An order of Russian education Ministry №393 of 11.02.02.

The work is submitted to the International Scientific Conference «Actual problems of science and education», Cuba (Varadero), 20-31 March 2011, came to the editorial office on 05.03.2011.

PERFECTION OF FOREIGN SPEECH PREPARATION OF STUDENTS OF THE SPORTS PROFILE IN THE COURSE OF INDEPENDENT WORK

Zakharova M.E.

North-Eastern Federal university named after M.K. Ammosov, Yakutsk, e-mail: mayaiza@mail.ru

In the course of independent work on perfection of foreign professional speech preparation of students their informative activity becomes more active, the intuition develops, allowing to solve professional problems, and also professionally important qualities of the future expert in physical training and sports are formed.

Subject of consideration of given article is only one aspect of independent work of the student at learning of foreign language, namely – work on mastering by foreign lexicon. Students are regularly trained in thoughtful analytical work on a word speaking another language which appears at them not as isolated unit, and as a structural element of the lexical system speaking another language focused on its speech use. [1, c. 119] The professional lexicon in the course of independent preparation leads to perfection of such necessary qualities in professional work, as: persistence, independence, initiative, aspiration to a victory.

Developing the maintenance of professional formation of the future teachers of physical training and sports and trainers in the course of learning of foreign language, we have provided necessity of development of foreign professional lexicon by students through class and independent work. At the first type of independent work statement of the purpose and planning can be carried out only by means of the teacher that usually takes place for students of the first courses at acquaintance to the future speciality:

Students are obliged to write out from texts terms on a speciality, to find definitions with consultation of the teacher conducting special disciplines.

The following type of independent activity provides teamwork with the teacher only at purpose statement, and planning and its performance are carried out independently and concern that kind of activity at which students should find in the explanatory dictionary of definition for professional lexicon, make multicomponent word combinations and pick up a cliche, applicable in oral and written business language, and then translate on a foreign language and constantly use them on a practical training on Russian and foreign languages. For awakening of educational interest to learning of foreign language in the course of through designing and revival of seminar employment it is possible to offer the following kind of work with some game moments: Students share on steams, and at a board, in advance having discussed with each other sense of terms offered to discussion of terminological word combinations, serially say definition to the term, without naming the term, in a foreign language if it is a question of practical employment on a foreign language, the group tries to guess, the made definition concerns what term, the second partner in case of difficulty comes to the rescue of group and results other, more corresponding or clear interpretation of the discussed term.

Using the following type of independent work, the task only is called by the teacher, and purpose of statement, planning and execution are carried out independently. After studying of the next theme, for example, from physical training and sports history in a foreign language, we have offered students, using the received knowledge to prepare the short message. At the given type of work the role of the teacher is reduced only to a designation of the task and «an outline basting» for its execution which will help students not only to use all potential which has been saved up during training at the institute, but also to feel the importance in educational process.

And, at last, last type – independent work under own initiative when the student independently defines the work maintenance, its purpose, planning and execution. The role of the teacher at such organization of independent work is reduced only to inform the information to students on possibility of participation in the Olympic Games, scientific student's conference.

Students have a positive spirit on studying and perfection of knowledge in humanitarian subjects that is shown in desire of additional employment on a foreign language. In each kind of independent work informative (theoretical and practical) problem is accurately formulated. On the one hand, it acts in informative activity of the student by the basis for regulation by own informative or practical actions according to the realized purpose of forthcoming performance of independent work, with another – allows the teacher to find out in time an obstacle insuperable to the student and by that purposefully to operate individual knowledge trained at achievement of the purpose of activity. [2, c. 12]. The teacher, knowing level of preparation of each student, defines on complexity degree the concrete task for everyone, regularly supervising it.

Under a condition of system and individualities in selection of tasks at students are developed steady skill to the given kind of work.

Protection of abstracts under the executed task in the end of last semester on total seminar employment can serve as the finishing moment at each stage of this kind of educational activity of students. The writing of the total abstract acts as a culmination point in preparation of the student. After all during performance of this work he should show ability to synthesize the knowledge received in audience or out of it, to formulate and independently to inves-

tigate the selected theme. [3, c. 95] The Organization of educational process as purposeful system of interaction of the teacher and student is directed on formation of skills of intercultural communications, development of informative activity in sphere of development of foreign professional lexicon. Skills of independent work in the information search, generated at learning of foreign language, can be easily transferred to speech activity in a native language that appears very important for mastering by professional knowledge. [4, c. 143] The positive result of the organization of educational process of this kind is perfection of all components of professional formation of the future teachers of physical training and sports in the course of learning of foreign language.

References

1. Sokolov L.A. Organization of independent work of students on studying of German language in not language high school. – Saratov, 1985. – 181 p.

2. Garunov M.G., Pidkasistyi P.I. Independent work of students. – M.: Knowledge, 1978. – 34 p.

3. Lukyanchuk L.Ya. Main directions and forms of independent work of students. – Kiev, 1992. – 136 p.

4. Biyatenko S.E. Place and a role of independent work of students at learning of foreign languages. – Rostov-on-Don, 1991. – 174 p.

The work is submitted to the International Scientific Conference «Actual problems of science and education», Cuba (Varadero), 20-31 March 2011, came to the editorial office on 27.012011.

UDC 614.25: 316.37:316.454.5

ANALYSIS OF MANAGERIAL COMPETENCIES IN THE SYSTEM OF POST-GRADUATE EDUCATION OF HEALTH CARE MANAGERS

Yasko B.A., Kazarin B.V., Rimmavi M.H.

The Kuban State Medical University, Krasnodar, e-mail: shabela@yandex.ru

Article is the third, finishing part of a cycle of the publications devoted to a problem of mastering by knowledge and skills of self-management in process post graduate education of the doctor-head. In it results of psycho diagnostic measurement of characteristics of the central nervous system, emotional intelligence, and administrative styles of doctors-heads linear and top management are analyzed. The psychological block base administrative the competence is defined; it is shown that they have managements invariant and specific to levels of establishment of public health services components. The obtained data can be used at selection and preparation of candidates on employment of administrative posts in public health services system.

Keywords: a reserve of staff, psychological properties of the person, administrative style, post graduate education

We studied a group of managers of the state medical institutions in the Krasnodar region and the city of Krasnodar, during their course of advanced training. The group included 86 people; average experience in management – 7,8 years. Gender distribution of the sample group represented the distribution among the professional population: 40,7% of the respondents (35 persons) were men, 59,3% (51 persons) – women. For the purpose of analyses, the results of the self-diagnostics were disaggregated in two subgroups: the first one consisted of top managers (head doctors and their deputies of clinical work, 32 people; further referred as group $\mathbf{n}_1$). The second group included 54 «line» managers – heads of departments (further referred as group $\mathbf{n}_2$).

Using the tapping test, we have revealed that 59,3% (32 people) of the heads of clinical departments have a weak or medium-weak type of the nervous system. At the same time, only 37,5% (12 people) of the top managers proved to have the same, i.e. the clinical managers of the medical institutions have predominantly the weak type of the nervous system; the data is statistically reliable ($\varphi^* = 1,97$ $p \leq 0,02$). Lability of the nervous system showed similar values: in group $\mathbf{n}_1$ 25,0% of the respondents (8 people) had a highly labile nervous system, while in group $\mathbf{n}_2$ the instability was observed in 38,9% of the respondents ($\varphi^* = 1,35$ $p \leq 0,09$, which can be regarded as a stable trend for this characteristic) [1].

An index of the integrative emotional intelligence reached 60,2 points in the sample group, which matches the average level of its intensity. There were revealed no differences between the groups of top and line managers ($p > 0,05$). The strongest skill of the observed health care managers was a self-motivation skill, i.e. an ability to control emotional condition voluntary and consciously. Diagnostic results reached a high level on the corresponding scale (in the whole sample group $M = 14,6$; in subgroups: $\mathbf{n}_1$: $M = 14,3$; $\mathbf{n}_2$: $M = 14,8$). The rest indices were average, i.e. between 8 and 13 points.

There were reported some tendencies that differentiated the analyzed subgroups. For instance, an ability to control own emotions, which is determined mainly by the type of individual neural-dynamic characteristics (for example, lability, power/weakness of the nervous system), bordered its low level ($M = 7,4$) among the line managers, and reached 10,6 points in the group of the top managers ($t = 3,81$ $p < 0,001$).

On the contrary, ability to sympathize and feel with others (scale «Empathy») was reliably better developed in the group of the department managers: 13,2 points on average, i.e. it nears the high level, as opposed to 9,5 points in group $\mathbf{n}_1$ ($t = 4,53$ $p < 0,001$).

Ability to perceive and influence emotions of the others tends ($t = 1,70$, i.e. $p < 0,1$) to prevail among the top managers, which proves that the chief doctors and their deputies are rather willing to communicate with people in emotionally stressful and difficult situations.

According to the results of the Blake-Mouton test, the majority of the top managers of medical institutions exercise the «*Authority – compliance*» management style (position 8.3 in the Managerial Grid), while the heads of departments prefer the «*Team*» management (position 8.6). The received diagnostic data could be interpreted as follows. The top managers of medical institutions feel high responsibility for their work, and thus focus, first of all, on achieving a positive final result when solving a task. The line managers regard it as important not only to do their job («high concern for work»), but also develop trustful relations with all the participants of treatment, which the manager controls as a process. In other words, they show much regard for their subordinates.

The correlation analysis revealed some invariant and specific connections between a

number of the studied parameters. It was established that regardless of the manager's level, *high concern to work* is positively correlated with high self-motivation and ability to perceive emotions of others; and is negatively correlated with a high index of empathy.

Factor «Concern for people» is connected with the empathy: in the group of the head doctors $r = 0{,}423$, and in the group of the department managers $r = 0{,}478$.

The following *specific* relationships could be distinguished in the subgroups of respondents.

1. Group $\mathbf{n}_1$. Scale «Control over own emotions» is positively correlated with high concern for work as a style characteristic of management ($r = 0{,}378$) and negatively correlated with factor «Concern for people» ($r = -0{,}344$). Scale «Perception of emotions of the others» is negatively correlated with factor «Concern for people» ($r = -0{,}754$).

2. Group $\mathbf{n}_2$. Higher attention to people is interdependent with the emotional awareness ($r = 0{,}324$), «self-motivation» ($r = 0{,}283$) and ability to perceive emotions of the others ($r = 0{,}660$).

Conclusions. The conducted analyses let distinguish a psychological aspect of the managerial competencies in the system of the health care institutions. It includes an invariant component, that describes a combination of abilities and professional leadership style, determined by the work specifics in the medical field. These are a medium-high integrative emotional intelligence [3]; well developed ability to control voluntary own emotional condition and emotions of the others; strong focus on success in work, which determines their high level of responsibility and being demanding on the staff [2].

Specific elements of the managerial competencies were determined for the both studied levels of managers. So, the top managers have a well developed ability to control emotions, caused by predominately strong and stable types of neurodynamic properties; moreover, the ability to control emotions is correlated with an exacting attitude and attention to work.

In the work of the heads of departments, one can find the following specific aspects of MC: well developed empathic abilities; combination of high concern for work and ability to organize the staff and pay attention to their needs.

There were also revealed the development goals. These are for the top-managers: empathic ability, skills of reflection on the own emotional conditions and experiences, emotional awareness; attention to personnel; for the line managers: skills of self-regulation of emotional conditions, ability to perceive and control emotions of the others for the work purposes.

References

1. Safonov V.K., Suvorov G.B., Chesnokov V.B. Diagnostics of neurodynamic peculiarities: Study guide. – SPb.: Saint-Petersburg State University, 1997. – 64 p.

2. Blake R.R. & Mouton J.S. Comparative Analysis of Situationalism and 9.9. Management by Principle // Organizational Dynamics, Spring. – 1982. – P. 20-43.

3. Emotional intelligence: an International Handbook / Ralf Schulze, Richard D. Roberts (eds.). – Cambridge – Göttingen: Hogrefe & Huber Publisher, 2005.

Materials of Conferences

NOT PHARMACOLOGICAL CORRECTION OF SYPERACTIVE CHILDREN

Bulgakov A.B., Bulgakova O.S.

The scientific-practical center «The psychosomatic normalization», St.-Petersburg, e-mail: bulgak_os@mail.ru

The question of superactive children correction is urgent. The adaptive method Aikido is applied at the scientific-practical center «The psychosomatic normalization» at the Aikido School «Ikinacorucan». The experimental data confirm efficiency of the given method. 15 boys with the diagnosis «Superactive», 10-14 years old were surveyed. They have carried out 15 sessions correctional Aikido. The method is constructed on application respiratory receptions (20%), east impellent traditions (70%) and verbal pedagogical trainings (10%). The sharp diseases were not registered at this time. There was no sharp change of an image of life.

Background, correctional and control (in 6 months) the measurements of parameters were accordingly such (significance value 0,99):

1. Self-supervision – 0,99 ± 0,2; 1,00 ± 0,0; 0,93 ± 0,2 (numbers). State of health Activity Mood – –1,26 ± 0,4; 2,4 ± 0,63; 2,4 0,6 (numbers). Jet uneasiness – 57,46 ± 7,6; 24,46 ± 2,7; 24,46 ± 2.7 (numbers). Speed of the arithmetic account (correct addition and subtraction of two-place numbers) – 6,33 ± 1,7; 11,53 ± 1,6; 11,4 ± 1,6 (minutes).

2. Subjective time – 39,00 ± 17,2; 47,13 ± 4,3; 49,2 ± 5,9 (seconds). Variation of subjective time – 21,13 ± 17,1; 13,13 ± 4,4; 11,06 ± 6,1 (seconds).

3. Systolic pressure – 124,66 ± 4,4; 116,33 ± 4,4; 116,33 ± 5,6 (millimeters of a mercury pole). Diasystolic pressure – 77,33 ± 7,7; 65,66 ± 5,6; 65,66 ± 5,6 (millimeters of a mercury pole). Frequency of intimate reductions – 95,40 ± 11,4; 71,46 ± 2,06; 71,33 ± 2,0 (impacts one minute).

4. Quantity of blood hemoglobin 134; 130; 130 (1/microlitre). Quantity of blood leucocytes – 5.5; 6,5; 6,5 (%). Quantity of blood s/n neutrophiles – 38; 63; 63 (%). Quantity of blood b/n neutrophiles – 7; 4; 3 (%). Quantity of blood lymphocytes – 55; 34; 34 (%). Quantity of blood eosinophiles – 1; 2; 2 (%).

Thus, the health rehabilitation Aikido is an effective method of normalization of a functional condition of the child, having minimal brain dysfunction, and resulting to a condition functional disbalance and psychological and physiological exhaustion.

The work is submitted to the Scientific International Conference «Modern problems of experimental and clinical medicine», Thailand, 20-28th February 2011, came to the editorial office on 27.12.2010.

LEVEL OF PERFORMANCE CAPACITY OF THE WORKERS IN OIL AND GAS PROCESSING INDUSTRY

Onayev S., Balayeva E., Kurmangalieva D., Shadetova A.

National Center of Labour Hygiene and Occupational Diseases of the Ministry of Healthcare of the Republic of Kazakhstan, Karaganda, e-mail:ncgt.ergo@gmail.com

We made the estimation of the working capacity level of the second generation oil and gas processing plants' workers. The level of the performance capacity depended on age, seniority and workers' profession. Thus, the number of persons having a low level of performance was found among the operators and engineers aged 19-29 with the working experience of 10 years.

Keywords: age, seniority, production factors, occupational groups

Oil and gas processing industry is one of the most profitable and quickly developing branches of the fuel energy industries in the Republic of Kazakhstan. Modern enterprises for oil and gas processing are being reconstructed and new generation plants are built which use latest technologies that significantly improve the working conditions [1, 2]. However, the use of modern equipment at the enterprises on the one hand facilitates the work of employees, and, on the other hand leads to the production factors making a harmful effect on the health of the operators. One of the ways to assess the impact of production factors on the functional state of the workers is to evaluate their performance during the work shift.

Study purpose. Evaluate the performance of the oil and gas processing workers while doing various operations.

Materials and methods of research

Performance of the workers of the second generation plant (SGP) and sour gas injection (SGI) plot was studied by a questionnaire (3-5). The questionnaire consisted of 7 questions which were evaluated from 1 to 10 points. WAI Index (performance) was calculated by the sum of the points obtained. Scores from 7 to 27 points corresponded to the low level of efficiency, 28-36 points – to the medium level, 37-43 points – to good performance, and 44-49 points – to the high level of performance.

120 SGP and SGI workers aged 36,5 ± 1,0 with the working experience of 9,5 ± 0,5 years took part in the interview. All respondents were divided into four age groups (18-29, 30-39, 40-49, 50 and elder), 3 work experience groups (1-9, 10-19, 20 years and more) and two occupational groups different in the nature of the labour operations: I group (64,2 %) – operators engaged in service of the process equipment for a production plant, group 2 (35,8 %) – leading engineers watching the process at the control panel, managers of various levels, and consultants.

Results of research and their discussion

Analysis of the results obtained in the calculation of the integral performance index – WAI index showed that performance of 42,5 % of the workers in group 1 and 20,8 % of the respondents in group 2 corresponded to the good level of performance, 4,2 % of the people in group 1 and 10,8 % of those from group 2 corresponded to the medium level of performance. High level of performance was recorded in 14,2 % of the workers of group 1 and 2,5 % of the workers of group 2. Low level of performance was registered only in 3,3 % in group 1 and 1,7 % of group 2.

A more detailed analysis of performance among the different age group showed that the most part (55 %) of the workers with low values of WAI index was registered among the workers aged 30 and elder age group (40 %) (table 1).

Table 1

Number of persons with different levels of WAI Index taking into account age-related changes

Age groups, years	Index of performance, %			
	7-27 Points	28-36 Points	37-43 Points	44-49 Points
18-29	55	45	...	7,4
30-39	21,6	60,8	17,6	10,1
40-49	31	44,8	24	5,2
50 or more	40	45	15	,,

Number of individuals with a high level of performance (10,1 %) was registered in the group of the workers aged from 30 to 39. The number of the respondents having a good WAI index in all age groups was 40-60 % and was not below 44 % indicating high working capacity of the workers.

Index of performance of the medium level was registered in the workers aged 30 and older and made 39,1–41,7 %. It shows that despite of the age Tengizchevroil workers maintained their performance at the good level, due to professional experience and skills enabling them cope with the work effectively.

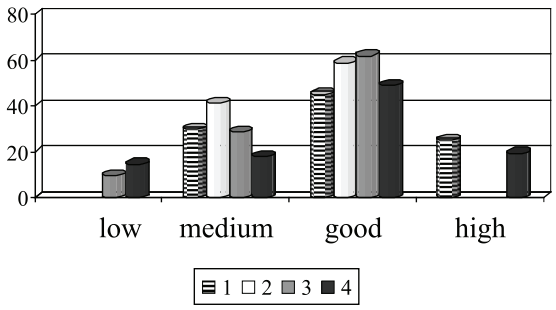
Nature of the changes of efficiency confirms the validity of our findings (table 2). Thus, the greatest number of the interviewed workers (41,3 %) having a low level of performance was observed among the workers with the working experience of 1-9 years whose average age exceeds 31 years. Number of persons keeping good performance during work length increased in 6,5–24,1 % cases, despite the increase in the average values of the calendar age from 30,7 years to 48 years, thus showing that the high level of professionalism allows to maintain a high working capacity, even elder age groups.

Table 2

Number of workers with different levels of WAI Index in the dynamics of seniority

Working experience groups, years	Index of performance, %			
	7-27 Points	28-36 Points	37-43 Points	44-49 Points
1-9	41,3	40,2	6,5	5,5
10-19	22,9	50,3	18,8	8,3
20 and over	31	44,8	24,1	...

Analysis of the prevalence of different levels of performance among workers of different specialties showed that the low level of efficiency met both in workers serving process equipment at SGI and SGP plants, and among workers watching the technology process at the remote control systems. In 14,5 % of the cases these were operators, and in 9,5 % of the cases these were the technology engineers (Figure).



Index of performance among workers of different occupational groups of «Tengischevroil» Ltd

N o t e : Occupational groups: 1 – managers of various levels, 2 – consultants, 3 – leading process engineers, 4 – operators

Thus, the analysis of the questionnaires assessing the performance of Tengizchevroil workers has shown that good values of WAI index level were typical for the age group from 30 to 50 years with the working experience of more than 9 years. Number of persons with the low levels of performance was registered in persons aged under 30 years with the working experience less than 10 years. Among the occupational groups we identified two professions (operator, engineer) where there were workers with low levels of performance.

References

1. Usenov S.M. Health of oil industry workers and the population of region of the Tengizsky oil and gas complex SEE // Mediko-social aspects of health of the population of regions of ecological disaster of Kazakhstan. – 1994. – P. 84-188.

2. Nadirov N.K. Prospect of use of new technologies in the oil and gas industry of Kazakhstan // Oil and gas. – 1999. – №3. – P. 35-40.

3. Veikko Kujala, Jouko Remes, Ellen Ek, Tuija Tammelin and Jaana Laitinen Classification of work ability index among young employees // Occupational Medicine. – 2005. – №55. – P. 399-401.

4. Juhani Ilmarinen The Work Ability Index (WAI) // Occupational Medicine. – 2007. – №57. – P. 160

5. Nurka Pranjić, Ljiljana Maleš-Bilić, Azijada Beganlić, and Jadranka Mustajbegović Mobbing, Stress, and Work Ability Index among Physicians in Bosnia and Herzegovina: Survey Study // Croat Med J. – 2006. – October; 47(5). – P. 750–758.

Materials of Conferences

ELECTRONIC LEARNING-METHODICAL COMPLEX ON DISCIPLINE «TECHNOLOGY OF PRODUCTS TREATMENT-AND-PROPHYLACTIC APPOINTMENT»

Shmalko N.A.

GOU VPO «Kuban State Technological University», Krasnodar, e-mail: na-shmalko@rambler.ru

The electronic learning-methodical complex (ELMK) on discipline «Technology of products of treatment-and-prophylactic appointment» is developed for preparation of engineers in the field of manufacture of bakery, macaroni and confectionery products of treatment-and-prophylactic appointment.

The given discipline is intended for reception by students of all forms of training of additional specialisation «Technology dietary grain, confectionery and pasta» within the limits of preparation of experts in a speciality 260202 «Technology of bread, confectioner's shops and pasta».

ELMK meets modern requirements of system of the quality management, shown to uchebno-methodical materials of high school, and contains in the structure the didactic elements developed with application of modern information technologies and the software (a format, the size in Mb): the working program of discipline (html; 0,7); a lecture course (pdf; 4,6); methodical instructions on performance of laboratory works (html; 1,8), test tasks (pdf; 0,5), independent work of students internal (pdf; 0,5) and correspondence (html; 0,6) training forms; multimedia applications and presentations (ppt; 16,4).

Working out is completely original, has sufficient volume for disclosing of the maintenance of the given discipline and achievement of the learning-methodical purposes, contains many the illustrative elements promoting as much as possible to use multimedia possibility of the modern software. It is executed according to the technical project of grant GOU VPO «Kuban State Technological University»» and since 2008 is successfully introduced in educational process of training of the students trained on a speciality 260202 «Technology of bread, confectioner's shops and pasta».

ELMK on discipline «Technology of products of treatment-and-prophylactic appointment» it was exhibited at the Russian exhibition-presentation of learning-methodical editions «Gold fund of the Domestic science» (RAE, Moscow, February, 2010) where has received the diploma of the winner in a nomination «the Best learning-methodical edition in branch».

The work was submitted to International Scientific Conference «Prospects for the development of university science», Sochi, 22-25 September 2010, came to the editorial office on 04.07.2010.

Materials of Conferences

ANDRAGOGICAL SUPPORT IN CAREER DEVELOPMENT

Sokolova A.S.

The first Moscow state medical university, Moscow, e-mail: alex8_s@mail.ru

The article covers the problem of the support of career development needs of adults which can be implemented on the base of andragogical approach. According to the modern interpretation of career phenomenon goals and some content issues of career education programs for adults are being identified.

Rapid changes in economic realities and labor markets all over the world, shifting labor force demographics, adult unemployment, concerns about the quality of life redefined the problems of adaptation of an individual to these changes. Such pressures have increased the degree of personal responsibility to express own potential, abilities and personal values in career development. These contexts identified the rising demand for an individual to be assisted in career planning and development, self-development in acquiring social adjustment skills as well as decision-making skills.

It has become obvious that theorists, researchers and practisioners in adult education have to pay more attention to career development processes of adult learners and to blend adult learning theory and career development theories in career education programs. Career education programs can help adults in viewing career development as a learning process as well as such programs can equip adults with lifelong survival skills in the field of career planning and development. Conceptual models and models of practice in career development are vital for adult education specialists in Russia and for international adult education specialists.

For adult education specialists in career development it is very important to have an understanding of what is «a career» to identify boundaries of domain, time and space within which their work activities and prerogatives occur. Key definition of «a career» that the author of this article formulates allows to show the philosophical approach to it and at the same time it can be translated to a more operational level. Our approach to career gives the understanding of this phenomenon as a life-span path where occupational choices and professional activities are integrated with other social roles of an individual in coherence with psychological characteristics, values and social experience of an individual, leading to self-development and self-fulfillment. Andragogical approach to career embraces the idea of self-development over the life span through the sequence of occupations and other life – roles. Thus, career development can be viewed as an integrated learning process throughout a lifetime when an individual acquires new knowledge and skills to function in work-related and other life roles successfully.

As far as we deal with career education it is obvious that one group fo professionals cannot accomplish all its goals alone. But it is apparent that no other group of specialists is more important to its goals than andragogues. An andragogue is competent in psychology of adults, psychology, theory and technology of adult learning. An andragogue has such qualities indispensable for the work among adults as empathy, tolerance, communicability, discretion, organizational abilities. Adult education specialist realizes that adult learners are self-directed, proceed from the base of previous experience, interested in solving career development problems. Adults want to acquire and to develop skills, knowledge, competencies in the field of career development to be engaged actively in labor market and in other social spheres.

Career education programs for adults provide a focus on real-life career development needs and help to identify and acquire new or expanded competencies they need to carry out new or changing roles on their careers. An andragogue helps adults to understand career development as a lifelong learning process. The practice of lifelong education gives the chance to an individual to receive blocks of competencies (including career development field) every time he or she needs them. New information technologies and socio-economic realities in modern societies give an individual different possibilities to get competencies, knowledge, skills throughout the life span. An andragogue delivers different blocks of competencies, skills and knowledge in accordance with the fundamentals of andragogy: preponderance of the self-directed learning, principle of the cooperative activities, experimental learning, individualization of learning, systemic learning, contextual learning, principle of the development of educational needs, consciousness of learning.

Participating in a career education program an adult can apply new knowledge and treat career development problems, act on a variety of career related tasks. Thus, we can identify important goals for career education programs:

1. Career education programs need to move from a focus on jobs and on occupational choice and to focus on life patterns, on the larger sphere of life and the interrelation of the vocational and personal;
2. Career education programs are to help make adults aware of their socialization within their career development;
3. Career education programs need to prepare adults for the life style choices;
4. Career education programs need to help adults achieve role integration in rapidly changing societies.

Adult education specialist must provide a systematic approach based on the technology of adult learning in delivering new information about different career development issues through which one gets better self understanding, understanding of own perspectives in labor markets, expanded view of education that influences not only the work role but other life roles as well. The andragogical approach in delivering career education programs helps an individual to integrate his or her previous knowledge and experience with the new knowledge in the field of career development and to reach integrated understandings of: self, the changing world of work, the role of leisure time, the necessity of self-fulfillment in all life roles, personal happiness.

In this way we see that career development issues are increasingly becoming more existential and career education programs will tend to become more conceptually based. Indeed, career education programs concentrate on assisting persons to become aware of their self-characteristics (such as aptitude, values, interests), their career opportunities (such as occupational alternatives, educational options) and the bringing together of self- and career opportunities into a plan for action. In essence, career education programs for adults must be designed to help persons become more purposeful, goal directed, capable of self-management in work roles and other life roles. The following themes can serve as the content of career education programs for adults:

a) decision-making development, using information to make different choices;

b) concern for the self-concept and its expression;

c) concern for life styles, values, leisure (education, leisure, occupation interact to create or influence a life style);

d) free choice to safeguard individual integrity;

e) individual differences;

f) flexibility in coping with change.

In connection with the themes that can become the content of career education programs for adults, it is possible to identify the adaptability skills to be imparted through career education programs for adults: career decision-making skills, skills required for self-understanding and understanding of educational/occupational opportunities, skills to humanize the workplace, skills to find meaningful work and productive use of leisure time.

The andragogical approach to career development is an integrated one which embraces different aspects of human life. This approach makes possible to present a variety of themes for career education programs. Career education field is of great interest to andragogy and requires contribution and practical implementation. We do believe that andragogy will be more focused on career development issues and the trend of career education within andragogy has a great potential in the current century.

Reference

1. Zmeev S.I., Sokolova A.S., Andragogy is a helper to build a career // New Knowledge. – 2006. – №2. – 7-10 p.

2. Super D.E. A life – span, life – space approach to career development. In Brown D., Brooks L. Career choice and development: applying contemporary theories to practice. – San Francisco: Jossey – Bass, 1990.

The work is submitted to the Scientific International Conference «Didactics and competency in professional teaching medical school and college», Moscow, 16-17 March 2011, came to the editorial office on 30.12.2010.

Short Reports

COMPARATIVE ANALYSIS OF CROSS-CULTURAL CREATIVITY RESEARCH FACTORIZATION RESULTS

Erdyneeva K.G., Popova N.N.

The Chita state university, Institute of sociopolitical systems, Chita, e-mail: eridan58@mail.ru

Ethnic peculiarities of creativity are described in this article that depend on their belonging to a certain ethnic group and are displayed in some significant differences in their creativity indexes (singularity, uniqueness, readiness) and personal peculiarities of a subject (reserveness/communicability, sensitivity, high behavior norms, shyness/courage, emotional stability/unstability etc.) as a member of an ethnic group.

Russia's integration into the world society is accompanied by globalization and rationalization processes, which causes increased interest to cross-cultural research. Because of that grows the number of creativity researches which contain the analysis of multi-level determination that includes cultural, social-economic and other factors. Since ethnic peculiarities reveal themselves in actions, activity products, person's behavior (V.S. Ageyev, A.K. Tolmacheva, G.B. Starovoytova, S.K. Smirnov and others) a necessity of creative activity displays study, that makes it possible to create a multitude of various original ideas within non-regulated activity conditions (M.A. Kholodnaya).

According to the position of S.U. Arutyunjan, M.S. Djunsov, N.D. Jandildin, H. Deiker, N. Freid and others, those who belong to a certain ethnic group posses the abilities typical for all members of the group and non-typical for others.

G.G. Shpet [6] thinks that in various expression forms such as words, drawing, costume, institutions, acts, documents – in other words everything that can be called «the culture products» we should differ object content as an actual value. Ethno-psychological aspect creativity study logically define the necessity of individual personal characteristics of different ethnic groups reveal in a comparative perspective. Therefore, a selection of two groups has been formed: 125 members of Buryat nation, 126 members of Russian nation, of which 125 males and 126 females, in age from 16 to 22, 251 persons in total.

The following methods have been used: subtest by E. Torrens «Picture completion» [3], separate associations test by S. Mednick in version by A.N. Voronin and T.V. Galkina [1], test of non-verbal creativity reveal by Y.N. Kulyutkin [2], two question list of personal creativity component by D.L. Johnson and G. Rensulli, 16 factors personal question list by R.B. Ketell (shortened version)[4].

Factor analysis of the obtained data showed us that factor 1 (F_1), that defined 10,2 % of the total dispersion included variables that had maximum factor weight: nationality (0,698) and age (0,503). Therefore, this factor can be called «ethnic peculiarities» as a display of respondent's nationality.

Factor 2 (F_2) that defined 8,52 % of the total dispersion is represented by variables that are the creativity indexes of the tested, so it has been called «creativity». We should outline, that variables «verbal» and «non-verbal originality» have almost the same weight (0,720 and 0,719 correspondingly) and it testifies the optionality of their division into types, so they can be united into one index: originality. Factor loading of the «originality» and «uniqueness» variables (0,720 and 0,682) demonstrate a strong relation of these indexes in creativity structure, in other words, the higher the originality, the higher the uniqueness.

In a similar way fluency (0,598) defines the flexibility (0,547) of the respondent's creativity.

Finally, factor 3 (F_3) that defined 6,83 % of the total dispersion included variables that were the characteristics of the respondent's personal qualities, so we called it «personal peculiarities».

In this factor a the following variables have a significant weight: «emotional stability-instability» (0,721) and «subordination-domination» (0,657). Factor loading of these indexes conditions high relation degree between emotional stability and domination, as well as the emotional instability and subordination.

Variables «reserve – communicability» and «sensitivity – high behavior norms» reflect average relation degree of such personal qualities as reserve and high behavior norms, communicability and sensitivity (0,628 and 0,608 correspondingly). «Low self-control and high self-control» positively correlate with «shyness and courage» as well as with «self-estimation adequacy» of the tested which is testified by their weights: 0,577, 0551, and 0,516 correspondingly.

Thus, belonging factor of a tested person to one of another nationality significantly influence creativity indexes (originality, uniqueness, fluency, flexibility) as a personal quality that are characterized by emotionality, commutability, conformity and self-control.

Insignificant gender differences were observed within our research while defining the creativity level. According to associative test, there are no proved differences between men and women in verbal creativity, but a trend of men domination in the associative verbal thinking can be seen

Empiric research of ethnic creativity peculiarities proved our hypothesis that ethnic differences in creativity development level are dependent on belonging to one or another nationality and are shown in significant differences in creativity indexes and personal peculiarities of a subject as an ethnic group member.

Thus, ethnic group is one of the factors that define the creativity structure and development in a poli-cultural region (Trans-Baiakal region).

References

1. Drujinin V.N. The psychology of common abilities. – SPb.: Piter, 2007. – P. 322-345.

2. Kulyutkin Y.N. Changing world and the problems of a personal creative potential development. Value-sense analysis. – SPb.: Ed. SPbSUPM, 2001. – 84 p.

3. Short test of a creative thinking (figure form). – M.: Endowments development institution, 1995. – P. 13-46.

4. Psychological practical session / ed. By A.S. Karmin. – SPb: Ed. Lan', 2002. – P. 32, 9.

5. Tunick E.E. Creative thinking diagnosis: Creative tests. – M.: Clean ponds, 2006.

6. Shpet G.G. Introduction into ethnic psychology. – SPb., 1996. – 155 p.

Short Reports

NEW BOOK INTRODUCTION

Kopytov A.I.

The Kuzbass state technical university, Kemerovo,
e-mail: L01BDV@yandex.ru

Siberian Branch of the Academy of Mining Science issued a monograph «History of Mining Development» in the Publishing House «Nauka» (Science) in Novosibirsk in August 2009.

The introducing book is a unique publication on 511 pages comprehensively elucidating the history of mining from ancientry to nowadays. The authors have been working on it for over 10 years analyzing and summarizing extensive material: the bibliography comprises 101 sources. By coverage and material systematization, the resent publication without overstatement can be referred to an encyclopedia of the mining development history within global experience.

The first part is dedicated to historical review of mining development as a world phenomenon, as well as to particularities of home science and practice. The second part presents phases of evolution of the major branches of mining industry starting from prospecting and exploration of minerals, finishing with education development, management, and mining legislation. A reader will find a fascinating review of historical evolution of equipment and technology for geological prospecting, construction and operation of mines, mechanical breaking, drilling and blasting of rocks, timbering of mine workings, mine transport, surveying and minerals preparation. The available information concerning the bottom of the Seven Seas and offshore fields development, conception of the space geology elucidates the future prospects of mining development. The third part is devoted to outstanding scientists, talented researchers and enthusiastic miners since earliest till modern times. There are rare biographical data and review of basic works, characterizing contribution of each scientist into mining development. The fourth part and the last one exposes evolution of the miners' overalls and mining engineers' uniform from various countries.

The book is notable for its high printing quality. In abundance of factual materials, it is easy to read. To its highs, it is necessary to refer a good literary language and elegance of style. The book is full of illustrations: it has about 400 drawings and photographs, many of them are unique.

The presenting publication may be rather useful for mining and geological exploration specialists, lecturers and authors of study aids on various specialties of Mining. It is not less important to state the purpose of the book as a means of popularization of human activities – mining. It will be also interesting for school graduates who thinks about future occupational choice.

If the information is interesting to you the authors of the book are ready to consider translating the book into English and publishing it for the concerned specialists abroad especially in the countries of the highly developed mining industry.

References

1. Kopytov A.I., Masaev Yu.A., Pershin V.V. History of Mining Development. – Novosibirsk: Nauka, 2009. – 511 p.