

Features of Adaptation to Innovative Activity of Teachers of Psychological and Pedagogical Disciplines with the Laterality Various Individual Profiles

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Abstract: The article is on to studying of the features of adaptation potential of teachers with various individual profiles of the laterality to an innovative activity. Pedagogical activity in the conditions of innovative educational space is considered. The specific features determining success of activity of the person, modulating adaptation processes are defined. Results of research of specific features of teachers with a different prepotent elbow are considered as the characteristics promoting social and psychological adaptation to innovative activity in higher education institution.

Key words: Adaptation • Individual profile of the laterality • Innovative activity • Innovative educational space

INTRODUCTION

In present-time Russia implementation of new approaches to development of higher education goes hand in hand with transformation of traditional educational institutions into universities of innovation type. Innovative education today is a process and result of such educational activity which stimulates new type of activity both of a separate person and a society as a whole. Pedagogical activity in conditions of innovative educational space suggests quite different processes of development of innovation activity's subjects. Increase in intensivity of action and growth in number of factors which reinforce dynamics of relation "teacher - innovative environment" determine improved requirements to adaptation mechanisms which is of key importance at the present moment. Today no modern higher education institute can develop itself being at the same time immobile academic structure [1, 2].

Innovative university is based on the following principles.

- Development of innovative potential of an university intended for preparation of intellectual potential able to provide positive changes in the sphere of its professional activity.

- Forecasting of demand and strategic management of the structure intended for extended production of innovation potential of a territory.
- Formation of infrastructure of innovation activity providing for integration of all educational academic values and entrepreneurship.
- Inculcation of new innovation corporate culture and internal competitive environment.
- Development of infrastructure for interaction of the university with external environment - educational, scientific and global integration of "academic" science into industry, business and power structures.
- Diversification of financing sources of universities and active fund rising.
- Creation of adaptive system of university management as self-learning structure [2].

The problem of adaptation of a man to different spheres of living activity is very fundamental. For example, fundamental is the problem of adaptation of teachers to innovation activity in an university.

Process of adaptation of teachers is connected with emotional stress which is reflected in physiological parameters of their organism and to a great extent depends on individual features of a specific teacher [4].

Up-to-datedness of studies in this sphere is determined by the fact that individual features are important factors which determine success of human activity as a whole, modulate adaptation processes when some factors of external environment change. Such factors in conditions of innovation activity within an university are as follows: transition to competence approach to education process, obligatory mastering of modern educational technologies, project management foundations, new principles of payment for labor of a teacher based on ranking of his activity etc. In order to evaluate adaptive potential of teachers in the process of innovation activity the attention of the researcher must be focused on particularities of functional asymmetry of the brain [5].

Professional adaptation as one of the kinds of adaptation which include socio-psychological and psycho-physiologic components is important and still less investigated by scientists area [6]. Without sufficient analysis there left many issues connected with adaptation to innovation activity of teachers with due regard to individual profiles of functional asymmetry of the brain [7].

The most adaptive personality's features are as follows: internality, striving to dominate, self-acceptance and acceptance of others, self-control, neuro-psychological stability, low anxiety. Therefore de-adaptation of teachers can be manifested in difficulty to accept and implement those tasks which must be solved while transiting to a new stage of high school development, decrease in activity, limitation of social contacts, conflicting, fatigability, demand to provide new working conditions, triggering of conflict situations and final step - ceasing of pedagogical activity [8, 9].

The aim of this study was investigation of adaptation particularities of high school teachers with different individual profiles of laterality to innovation activity.

Below there are the results of study which covered the teachers implementing main educational programs of psychological-pedagogical specialties (74 teachers, 67 - female and 7 male) aged 25-45.

Lateral profiles were marked as follows: (PPP) - respondents with prepotent right hand, right ear and right eye; PPL - respondents with prepotent right hand, right ear and left eye; PLP - respondents with prepotent right hand, left ear and right eye; PLL - respondents with prepotent right hand, left ear and left eye [10].

MATERIALS AND METHODS

Cattell test, 16PF, method of diagnostics of the level of neurotization and psychopatization (SRI named after V. Bekhterev, 1980), SPA-diagnostic method by K. Rogers and R. Diamond, sensibilized questionnaire to determine hand-characteristic (M. Annet, 1970), Lateral characteristics map (A. Chuprikov, 1983), Scales of time orientation and Time semantic differential (E. Golovakha, A. Kronik, 1984) [7, 11, 12].

Main Part: The results of study are presented in Table 1.

As it can be observed from the table in the sample of teachers of psychological-pedagogical disciplines the most numerous portion - lateral group PPP - 45,9%; then comes the group PLP - 16,2% and PPL group - 14,9%; then comes PLL group - 12,2% and mixed group of left-handed teachers and ambidexters - 10,8%. The results confirmed available data which demonstrate that the group of unilateral right-handed persons (PPP) is the most numerous in the whole population.

Statistical differences between the teacher groups were identified by Cattell test, 16PF, SPA(Rogers, Diamond) and UNP methods (developed by SRI named after V. Bekhterev), Types of time orientation and Time semantic differential [2]. The results are shown in Table 2

It is obvious from Table 2 statistically significant differences are identified while using 16 RF method of R. Cattell by factor A (reticence-sociability): this value is higher with the teachers with LPPPR than with teachers with PPPPR ($p < 0,05$). This means that teachers of the mentioned above disciplines with prepotent left elbow are more reserved, indifferent, liable to doubts, are striving to live in isolation, avoid compromises in opinions: teachers with PPPPR are characterized as communicative, kind-hearted, trustful, attentive to people, they are ready for cooperation and mutual help. Differences in average values assessed by UNP method were as follows: level of neurotization and psychopatization with teachers with LPPPR is higher than with teachers with PPPPR ($p < 0,01$) which testifies that teachers with PPPPR are emotionally stable, optimistic, independent and easy in communication. In the same time low level of psychopatization testifies carefulness, pliability, orientation to others' opinion and following common rules of behaviour strictly.

Table 1: Distribution of teachers with different individual lateral profiles

	PPP (%)	PLP (%)	PPL (%)	PLL (%)	Mixed group of left-handed persons and ambidexters
Teachers of psychological-pedagogical disciplines	45,9	16,2	14,9	12,2	10,8

Table 2: Results of study of individual-psychological particularities of teachers of psychological-pedagogical disciplines with right and left results of crossing hands' test

Parameter	Left indicator of crossing hands' test (average values)	Right indicator of crossing hands' test (average values)	Reliability of the differences identified by U-Man-Witney criterion
(16 PF) R. Cattell			
factor A	8,2	6,9	p< 0,05
Diagnostics of the level of neurotization and psychopatization			
Neurotisation level	17,9	16,3	p< 0,01
Psychopatization level	2,4	1	p< 0,01
Method of Time orientation types			
Orientation to the past	5	6,8	p< 0,05
Orientation to the present	8,5	9,2	p< 0,05
Diagnostics of psychological adaptation (Rogers, Diamond)			
adaptation	58,7	63,6	p<0,05
Acceptance of the others	63,4	71,6	p<0,002

Differences in average values assessed by the method "Types of temporary orientations" were as follows: teachers with PPPPR are more oriented to the present than teachers with LPPPR ($p<0,05$). Teachers with LPPPR are oriented to future achievements (9,4 points and 8 points accordingly), but the level of difference is lower than significant values. Teachers with PPPPR are more oriented to the past, they are inclined to analyze past events which probably tells about more realistic position and constructiveness in teaching activity, demonstrating the rule of right elbow (left semi-sphere of the brain) which can influence their adaptation potential.

Method of Time semantic differential did not find out any differences in average values between teachers of psychological-pedagogical disciplines with right and left results of crossing hands' test.

Some differences in average values were shown by SPA method between teachers of psychological-pedagogical disciplines with right and left results of crossing hands' test. "Adaptation" scale test showed that teachers with PPPPR teachers demonstrate higher values than teachers with LPPPR ($p<0,05$); the same situation is with "acceptance of the others" scale. This suggests that teachers with PPPPR will use the most adaptive strategies of behaviour, they tend to accept the others, with all their advantages and disadvantages.

The next stage of our work is interpretation of Spearman correlation analysis ($p=0,05$). Looking at the results of correlation analysis we can put forward specific parameters which are integral in the structure of interrelation of personality's characteristics. The least decisive (peripheral elements of the structure) are the following parameters: B factor ("high intelligence" and "emotional comfort") (-0.30); C factor ("emotional stability" and "future")(0.35); E ("obedience" and "self-acceptance")(-0.30); H ("courage", "self-

acceptance") (-0.34); "internality" (-0.32); M ("pragmatism" and "discontinuity of time" (-0.37); O "anxiety" and "internality" (0.31), "truthfulness" (0.30); "past time" and Q1 "radicalism" (-0.39); "escapism" and Q4 "anxiety" (-0.30); "internality" and "the future" (0.32); "stress of time" and "adaptation" (-0.30); "self-acceptance" (-0.30).

Relying on this data we conclude that emotional stability positively correlate with orientation to the future. Obedience can facilitate non-acceptance of oneself because of low self-assertion. Carelessness can lead to dependence on the staff and decrease in self-control. Courage and decisiveness of the behaviour can testify external locus of control. And the more pragmatic is a teacher the less anxious they are and time seems more continual, gradual. Anxiety determines internality and wish to be fair with people. Previous life experience allows them to be more tolerant to habitual difficulties. Thoughts about future achievements can be manifested because of internal locus of control, feeling of stress of time can determine de-adaptive trends in behaviour and non-acceptance of oneself.

Now let us to proceed with so called nuclear structure. The strongest relations are between the following scales of methods: internality and stress of time (-0.40). Such relationship can tell that focus on internal state, internal world facilitates acceptance of time as gradual, nice and continuous.

Results of correlation analysis of the results of the teachers with leading left elbow demonstrate those main parameters which are integral in the structure of interrelations of personal features of this group of the study. Less decisive (or peripheral elements of the structure) are the following parameters: A sociability and the present (0.33), the future (-0.33), emotional comfort (0.37), subordination (0.36); C emotional instability and

des-adaptation (0.35), non-acceptance of the others (0.33), truthfulness (0.35), escapism (-0.31); E dependability and subordination (0.34); F carelessness and past time (0.35); H courage and escapism (-0.32); I realism and future (0.34), self-acceptance (-0.33); L suspiciousness and stress of time (0.33), non-acceptance of the others (0.34), emotional discomfort (0.31); M pragmatism and de-adaptation (-0.39), non-acceptance of the others (-0.37), emotional discomfort (-0.31); N insight and psychopathization (-0.37), the future (0.31), submission (-0.31); O feeling guilty and the future (0.35), de-adaptation (-0.34), non-acceptance of the others (-0.31), honesty (-0.37); Q1 conservatism and the past (-0.35); Q2 dependability and self-acceptance (-0.34); Q3 self-control and submission (-0.32); Q4 stress and the present (-0.31), the future (0.37); neurotization and emotional discomfort (0.35); psychopathization and continuity of time (-0.32); the past and internality (-0.35), escapism (0.32); the future and internality (0.32), honesty (0.37); continuity of time and submission (-0.32); stress of time and emotional discomfort (0.33), escapism (-0.31); emotional attitude to time and submission (-0.35).

Having analyzed the identified relationships we observe that friendly and kind attitude to other people facilitate concentration on the events happening in the present time and decreases thoughts about the future, facilitates emotional comfort and which to please, agree with others. High emotional instability will result in non-acceptance of the others and de-adaptive trends in behaviour. Besides that the more dependability is, the more a teacher is striving for be submitted by the others, agree at their opinion. Carelessness focuses teachers' attention on the past because the present time does not produce anxiety in them. Courageous behaviour can lead to wish to postpone the solution of the problems available. Firmness and skepticism can result in prudence, conservatism in regard to the future and critical attitude to oneself. Suspiciousness in regard to the others can produce the feeling of stress, non-acceptance of the others and emotional discomfort. Ability to keep oneself cool in difficult situations decreases psychopathization of personality, orientates a teacher to the future, produces wish to dominate. Feeling guilty because of non-acceptance of oneself and the others can lead to lying, non-adequateness in behaviour. Dependability produces critical attitude to oneself, non-acceptance of oneself, self-control leads wish to dominate. Neurotization facilitates emotional discomfort, psychopathization leads to feeling of discontinuity, displeasure of time. Focus on the past life produces externality and wish to escape from the

problems. And orientation to the future results in internality, honesty, wish to solve ones problems as soon as possible.

The strongest relationship were identified in the following scales: C emotional instability and subordination (0.51); E dependability and non-acceptance of the others (0.48); F carelessness and the present (-0.49); honesty (0.45); H courage and de-adaptation (0.42), non-acceptance of the others (0.42); I sensibility and the present (-0.48), continuity of time (-0.44); O feeling guilty and emotional comfort (-0.44), submission (-0.59); Q1 conservatism and the present (-0.48), the future (0.58); stress of time and non-acceptance of the others (0.41).

Emotional instability produces dependability, wish to be subordinate to others. And feeling of non-confidence in regard to one's own actions. Feeling of carelessness is not connected with the present time, does not facilitate activity in the present time. Sensibility produces the feeling of discontinuity, displeasure with time. The feeling of anxiety leads to emotional discomfort, wish to be independent, to be different from the others. Dependability on the staff reduces self-control and facilitates trend to follow the others. Feeling of stress of time determines negative attitude to the others.

CONCLUSION

Thus, the teacher with prepotent left elbow have the following characteristics. They are emotionally unstable which is manifested in anxiety, they can be easily upset and conflict with others when obstacles on their way to the goals appear, be annoyed and manifest displeasure, they do not feel that they are responsible for actions. They can be shy because of non-confidence in themselves. They are prone to non-feeling guilty which probably can characterize them as extravert, non-responsible persons. They are also characterized by conservative views because they do not accept changes. Most of teachers with such features depend on the staff, need the support from the colleagues, they also depend on the circumstances, that is why they easily adapt to available situations and manifest increased anxiety not for the present but for the future, which prevents from developing adequate strategies of behaviour.

Inference:

- Group of unilateral right-handed teachers PPP is characterized by maximal number in the whole population.

- The results of research of individual particularities of teachers with different prepotent elbow can be considered as characteristics which facilitate, in some cases, socio-psychological adaptation to innovation activity in an university.
- The particularities of adaptation of teachers to innovation activity in an university were identified by means of correlation and factor analysis.
- Group of teachers of psychological-pedagogical disciplines with LPPPR profile can be characterized as emotionally unstable, which is manifested in anxiety, conflicts while not achieving the goals. They have external locus of control.

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