

Results of The Investigation of Psychological Influence On Development of Students' Motivation

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The article considers peculiar problems of motivation formation in pedagogical activity, motivational sphere of the personality by means of purposeful influence of psychological factors, influence in the form of active methods of study (special psychological course, practicum, and training), problems of realization of active methods in teaching process worked out on the basis of collective-dialogue cognitive activity (CDCA) technology.

Keywords: motivation of pedagogical activity, professional orientation, professional intentions, professional choice, active methods of study, life-sense personality orientations, professionally significant qualities, motivation need sphere

INTRODUCTION

The problem of formation motivation in the pedagogical sphere, shown by the analysis of literature, is still less developed both in theoretical and practical sphere. Most researches are devoted to the study of special pedagogical abilities, organization of the studying process, problems of interrelation between a teacher and a student. However, the problem of formation of motivation in the pedagogical sphere still raises some debates (Hyin E.P.,2000, Horner M.S.,1972, Danilova N.N.,1989).

In order to prove the hypothesis that the formation of personality motivation can increase with the help of purposeful influence of psychological factors, by active methods of study (psychological special course, practicum, training), implemented in the curriculum of specialists training in higher educational institutions, we have

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conducted the research which revealed the initial state of formation motivation component of second year students' professional development (Lekerova G.J., 2008).

Most of the students in experimental (62.5%) and control (55%) groups did not have or had only partial idea about their future profession. Consequently, only 37.5% of students from experimental group and 20% from control group did not connect their professional intentions with the chosen specialty. This, in turn, became the evidence of absence or insufficient development of necessary professional vocation (Lekerova G.J., 2014).

METHODOLOGY

Results of the verification experiment showed insufficient formation of motivation component of students-teachers' professional development, which also proved low rates of achievements and coefficient of students' attitude to the chosen specialty (0.45 – in experimental, 0.55 – in control groups).

On the formation stage of experiment, the realization of active methods principles of teaching was worked out via the technology CDCA (collective-dialogue cognitive activity).

Checking of motivational formation component of future teachers held among the 3rd year's students showed considerable changes in comparison with the verification experiment results. All the students had more definite idea about their future profession (Table 1).

The number of students who have a full representation about teacher's work has increased, that fact influenced motivational expression to a professional activity. Students from experimental group first pointed at the interest and professional vocation (3.9%). Students of experimental group were highly interested and inclined to their future profession, they showed 65% of (which is 26.5% more than the 2nd year students) and 57% of control group students (15% plus). Increase of interest to the chosen specialty influenced the change of students' professional intentions. The survey showed an essential difference between students' professional intentions in experimental group in comparison with the results of verification stage (See Table 2). The number of students intending to work the chosen specialty increased in both groups – 20% in experimental, and 5% in control (Table 2). The number of students who do not connect their professional life activity with teaching considerably decreased (Lekerova G.J., 2007).

Positive dynamics of motivation formation component of professional development manifested in the change of achievements. Studying results in subjects of psychology-pedagogy module became higher both in experimental and control groups, having undergone greater changes among the students from experimental group.

Table 1. Change of students' representation about professional teacher's activity

Students' ideas about teacher's work		Results r of students (%) ideas about teacher's work	
		Experimental group	Control group
Students who have a definite idea about future profession	2012-2013	15 (37.5%)	18 (45%)
	2013-2014	23 (57.5 %)	18 (45 %)
	2014-2015	36 (90 %)	30 (75 %)
Students who have partial idea about their future profession	2012-2013	22 (55 %)	20 (50 %)
	2013-2014	17 (42,5 %)	22 (55 %)
	2014-2015	4 (10 %)	10 (25 %)
Students who have no idea about teacher's work	2012-2013	3 (7.5 %)	2 (5 %)
	2013-2014	-	-
	2014-2015	-	-

RESULTS

Constantly, Realization of pedagogical conditions continued on the 4th year of study. According to their specialty, students took an active part in methodological seminars, scientific practical conferences and regional seminars held by the teachers of children's homes, schools and boarding-schools.

Consequently, students could understand and realize the aims of professional training with more sense (Table 2).

The final experiment held in the end of the academic year among the 4th year students affirmed the fact that the most of the students from experimental group have a complete representation about their future work. It has postulated the changes in the professional motivation. The motive dealing with professional activity was at the first place according to the experimental group students' assessment. That's why the number of students from experimental group who are going to work by the chosen specialty has increased. There were no students from this group who did not identify their professional intentions (Lekerova G.J., 2014).

Meantime, some students do not link their professional determination with the teacher's profession, but this index has decreased up to 3 times in comparison with the 3rd year. Among the students of control group it has increased, on the contrary.

The obtained results give us the notion of professional interest increase among the 4th year students, however there are more students with a high professional interest in experimental group (75%) than in the control one (60%). Consequently, the number of students from experimental group who show the interest to apply their knowledge in practical activity has increased (Figure 1).

Table 2. Changes in professional intentions of students, future teachers

Professional intentions		Number of students (%) showing the intention	
		Experimental group	Control group
I am going to work the specialty	2012-2013	9	12
	2013-2014	17	14
	2014-2015	20	16
I am going to work the given specialty	2012-2013	12	14
	2013-2014	12	14
	2014-2015	16	15
I am going to continue my professional growth	2012-2013	4	2
	2013-2014	4	3
	2014-2015	1	-
I will continue studying in another higher education institution	2012-2013	3	2
	2013-2014	2	2
	2014-2015	1	2
I am going to work another specialty	2012-2013	6	3
	2013-2014	3	3
	2014-2015	2	4
I have not decided yet	2012-2013	6	7
	2013-2014	2	4
	2014-2015	-	3

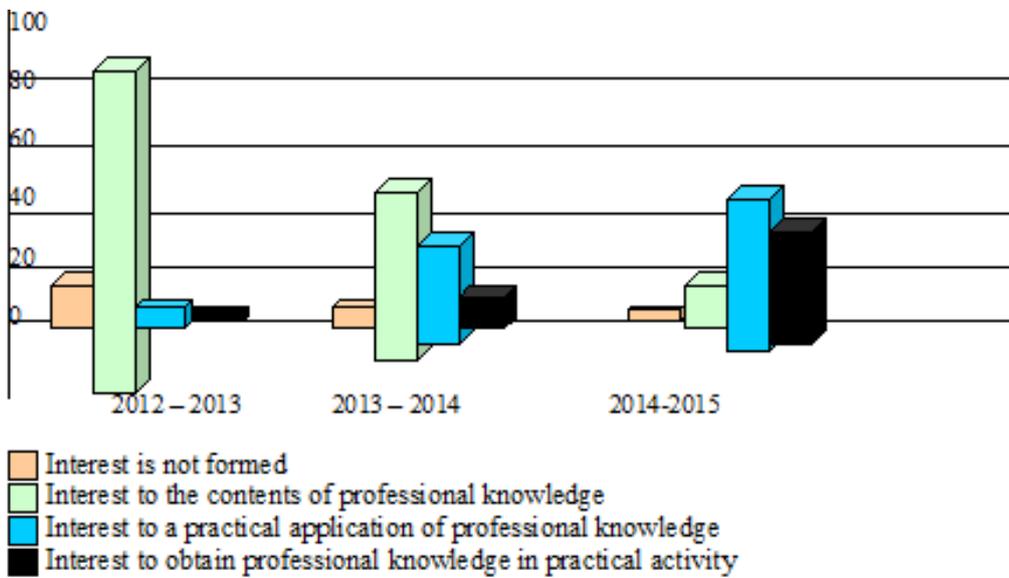


Figure 1. Change of types of professional interest formation in the students from experimental group (2012-2015).

Approximately the 1/3 of students displays their interest to getting knowledge during practical activity and through realizing its results. Data analysis shows that deviation in self-assessment and expert evaluation of types of professional interest formation of the students from experimental group has almost disappeared (only 4 of them showed a lower self-evaluation). This certifies the fact of adequate self-evaluation developing. Unlike experimental group, 9 students from control group displayed a higher self-evaluation in two kinds of professional interests. Dynamics of professional interests growth among the students taking part in the experiment you can see on histogram (Figure 2).

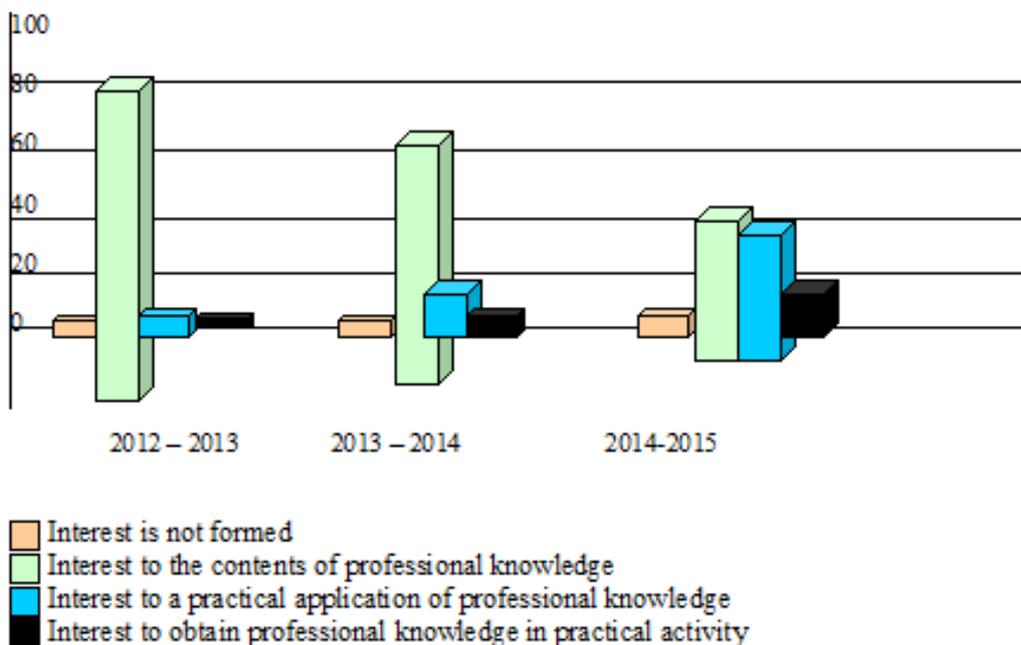


Figure 2. Change of professional interest formation types of the students from control group (2012-2015).

The change of professional interest formation types of the students was confirmed by the increase of the coefficient of positive attitude to profession (by V.K. Dyachenko). In experimental group coefficient increased up to 0.2 (approximate 1), in control – 0.05.

The ability to self-development and self-education has also changed. On the 3rd year, in spite of the fact, that the average level was dominant as on the second year, the number of students with a lower stage of development of abilities was decreased and the number of students with higher stage of development was increased, but the gap in the groups indicators was not so great as on the 4th year (Table 3).

Table 3. Change of the students' accommodation levels to self-development and self-education

Accommodation levels		Amount of students (%) having the level	
		Experimental group	Control group
Lower	2012-2013	10 (25 %)	8 (20 %)
	2013-2014	4 (10 %)	6 (15 %)
	2014-2015	3 (7,5 %)	5 (12,5 %)
Middle	2012-2013	28 (70 %)	27 (67,5 %)
	2013-2014	24 (60 %)	26 (65 %)
	2014-2015	16 (40 %)	24 (60 %)
Higher	2012-2013	2 (5 %)	5 (12,5 %)
	2013-2014	12 (30 %)	8 (20 %)
	2014-2015	21 (52,5 %)	11 (27,5 %)

The studying results can confirm the successful formation of motivation of future teachers in a definite way. A comparison of progress results in professional subjects during testing period displayed its increase: in experimental group the average arithmetic mark increased to 0.9, and in control one – only to 0.4.

Thus the development of professional motivation, requirement to mastery, professional interest, the desire for self-development and self-education which are the structural elements of motivational component in professional growth of the students from experimental group is a positive factor in the dynamics of its formation (Join Joan and 20,350,855 other researchers on Academia.edu <http://bham.academia.edu/JoanDuda>).

Methodology of studying valuable orientations by M. Rokich is based on a direct ranging of the list of values and is convenient for statistics.

Comparative table of results by the test "Life values" of the students from control and experimental groups (range) (Table 4).

A comparative analysis of the data concerning the hierarchy of students' life values lets us come to a conclusion that in the result of formation experiment the students from experimental group has considerably changed their system of pedagogical values, where spiritual values became predominant. So, the significance of life material values has changed its position from 1 to 6, though preserving its priority. Self-realization and self-education have been increased: self-realization changed 11 position to 3, and self-development – 9 position to 7. It is noticeable that entertainment has been lowered to the last position (Lekerova G.J., 2014).

Values hierarchy of students from control group has also changed towards the spiritual side, but not so significantly. Material security life stayed on its 3 position, whereas self-realization and self-development are on 11 and 9 accordingly.

Comparative table of results by the test "Life values" of the students from control and experimental groups (range) (Table 5).

Table 4. Terminative values

Life values	Control group		Experimental group	
	Before	After	Before	After
Interesting job	7	8	8	1
Health	11	6	5	2
Self-realization	10	11	11	3
Social recognition	14	15	15	4
Happy family life	4	4	3	5
Material security	2	3	1	6
Self-development	8	9	9	7
Self-assuredness, inner harmony	5	1	6	8
Good and loyal friends	6	5	7	9
Love	3	7	4	10
Life worries	16	17	16	11
Independence in judgment and actions	9	10	10	12
Active life	1	2	12	13
Other people's happiness, achievements	17	18	17	14
Creativity	18	12	18	15
Knowledge	13	14	14	16
Life wisdom	12	13	13	17
Entertainment	15	16	2	18

Table 5. Instrumental values

Life values	Control group		Experimental group	
	Before	After	Before	After
Efficiency in occupation	14	1	14	15
Education	2	2	2	2
Good-breeding	11	3	16	3
Neatness	4	4	4	9
Self-control	5	5	5	6
Independence	1	6	6	14
Vivacity, sense of humour	6	7	7	13
Responsibility	10	8	11	1
Assiduity	8	9	9	10
Courage to express the ideas	9	10	10	11
Honesty	18	11	18	5
Rationalism	3	12	1	17
Tolerance to others' judgment	12	13	12	8
Ethnic tolerance	13	14	13	7
Tactfulness, care	15	15	15	16
Irreconcilability to one's own and others' drawbacks	16	16	8	18
High claims	17	17	17	4
Hard will	7	18	3	12

The students gradually become self-assured, develop their abilities in their professional sphere, take possession of professional experience, develop creatively, improve the system of valuable orientation (Alshuler A.S., Tabor D., Mc. Intire, 1970).

The aforesaid lets us come to a conclusion that formation of personality motivational sphere may be improved by the influence of psychological factors, means of influence such as active methods of education (psychological special course, practicum, training), introduced into the process of specialists preparation in higher educational institutions. The results of formative experiment affirmed main hypothetical suggestions of the research that under the conditions of formation of collective-dialogue cognitive activity in the process of education there occurs intensive development of motivation towards pedagogical activity which is expressed through personality changes and, consequently, in the increase of effectiveness of the studying process (Bandura A., 1977, 1997, Deci E., 1985, Dweck C.S., 1999).

To check the suggestion that a personal sense manifesting itself in the form of its sensible aim set before a person belongs to motivational sphere and predetermines a teacher's activity, we have conducted a research of semantic field "My profession".

A subjective semantic field "My profession" is build on the basis of teachers' factual matrix. The results of teachers' subjective scaling of the properties describing their professional activity have been analyzed on the basis of factual matrix. For a strict order of properties there has been conducted a pilot experiment by J. Kelly's methodology of personality designing which allowed to define the properties used for evaluation of professional activity. This methodology also lets avoid possible distortions occurring under external thrust of those properties which are not peculiar for the person's professional activity (Goleman D., 1995).

During the testing we have used a binomial criterion 'm' designed for contrasting the frequency of occurrence of some effect with theoretical or given frequency of its occurrence. Criterion 'm' determines whether empiric frequency of occurrence of a property exceeds the given, theoretical one. The differences are true if an empiric frequency 'm' is more or equal to critical meaning of 'm' (criterion) (Gordeeva T.O., 2002).

Sensible aims have been studied on the basis of psychosemantic research with the help of factor analysis by method of main components with Varimax circulation. Data of subjective scaling of properties describing a professional activity have undergone factor analysis (Table 6).

Table 6. Grouping matrix of factor loading of personality designing which form the subjective image "My profession" in the experimental group of teachers

Unipolar scales	Factors		
	Self-actualization in the activity	Selfless service	Uninteresting job
It's an interesting job	0.585	0.142	- 0.740
I won't change it for another	0.568	0.543	0.120
It calls forth enthusiasm and strengthens	0.612	0.697	- 0.108
It's a creative job	0.689	- 0.010	- 0.517
It allows me to realize my creativity	0.609	- 0.464	0.238
It takes away energy and calls forth tiredness	- 0.305	0.8484	0.182
It's an important job	0.872	- 0.024	- 0.172
It allows me to create and introduce the new	0.853	- 0.277	0.033
It brings a spiritual satisfaction	0.786	- 0.376	0.015
I can see the output and use of my work	0.651	0.580	0.300
After vacation I am eager to work again	0.705	- 0.047	0.503
I can easily find a "way" to any student	0.474	- 0.131	0.551
Percentage of the sum dispersion	43.5	19.2	13.4

DISCUSSIONS

The main aim of studying semantic field “My profession” was to investigate teachers’ sensible aims towards their professional activity. We were interested in the sensible aim as the leading stage of purposeful activity regulation which represents the form of expression of a personal sense – be ready to carry out a definite activity. A personal sense displayed in the form of a sensible aim belongs to the sphere of motivation and determines our activity. Our data have revealed different motives – from self-actualization to escape from being actively involved. Subjective images of the profession in the way they have been formed in the professional teacher cognition are the carriers of those sensible aims, “standardized invariants of personal sense” of professional group members (in our case – groups of teachers). It has become a confirmation of a private hypothesis of our research (Lekerova G.J., 2015).

To check a hypothesis that adequacy between the level of functioning of personal sense system and direction of professional activity, which is manifested in the sensible attitude to these elements of reality and to a person as an object of this relation, postulates motivation necessary for an effective activity, we have conducted a research to study the life-sense personality orientations and their interdependence with the development of professionally-meaningful qualities (Lekerova G.J., 2014).

To study the dynamics of life-sense personality orientations and their interdependence with the development of professionally-meaningful qualities in the process of professional activity, which has a socially-oriented bias, we have conducted a research where 105 school-teachers took part. The first group consisted of those whose working period did not exceed more than 3 years, and the second group of those who worked more than 3 years. Such division made it possible to study the peculiarities of functioning personal sense system both on the level of adapting to a professional activity and during the activity realization. The data obtained were transformed to standard index and were interpreted in the frames of new concept of life-sense orientation tests (Lekerova G.J., 2015).

Life-sense orientation of young teachers in all subscales is expressed in less degree. It can be explained by the adapting period of professional introduction. A special attention deserves the indices of subscales “Process”, “Result”, “Control locus - I” which express the results under average. It points at unsatisfactory state with the present life situation and the past experience which do not allow to accept the full responsibility for activity results (Table 7).

Correlative analysis of professionally meaningful qualities and life-sense orientations test indices conducted with the group of teachers revealed important interrelations between the parameters (Lekerova G.J., 2015).

As professionally meaningful qualities, we have considered personal factors singled out by R.B. Chattel the expression degree of which differentiates teachers from the other specialists (scales: A+, N-, B+, H+). The developing of general sensible attitude to life, process and result of the professional activity, and also the feeling that any life situation can be controlled are expressed by the indices (A+) – readiness to future contacts, (N-) – ability to support the contacts, (H+) – insatiability by the contacts. “A” factor as an index of the open behavior and direction towards interrelation is also connected with the index of availability of sensible life aims and interval locus of teacher’s control which, in its turn, correlates with the index of social courage and high resistance during the social work (H+). This fact confirms our suggestion that professionally meaningful qualities will reveal in the activity only under the condition of sensible attitude in the context of the complex cognitive perception of personal life and to a personality as an object of this activity (Table 8).

Table 7. Average index of life-sense orientations of the group of teachers under research

Subscales of life-sense orientations	Groups under research		P
	1 st	2 nd	
Life orientations	5.11	6.28	0.01
Aims	5.17	5.74	0.23
Process	4.77	5.65	0.05
Result	4.71	5.82	0.03
Control locus - I	3.61	5.74	0.01
Control locus - Life	4.81	5.74	0.06

Table 8. Correlation coefficients of professionally meaningful personal teacher characteristics and index of life-sense orientation

Factors	Life-sense orientation subscales						
	16 Personal factors	Life orientations	Aims	Process	Result	Control locus - I	Control locus - Life
A		0.36	0.20	0.25	0.24	0.27	0.30
N		- 0.23	-	- 0.25	- 0.29	-	-
B		-	-	-	-	-	-
H		0.31	-	0.24	0.23	0.23	0.26

Note: only statistically important correlations are given ($p < 0,05$).

CONCLUSIONS

Personality motivational sphere has a dynamic character. Quality peculiarities of development of person's motivational sphere depend on personal characteristics. Adequacy between the level of functioning of personal sense system and direction of professional activity, which is manifested in the sensible attitude to these elements of reality and to a person as an object of this relation, postulates motivation necessary for an effective activity.

The applied meaning of the research results is proved by the special courses program "Peculiarities of personality motivation sphere" and a motivational training, program of developing non-monetary motivation which were worked out on its basis. There was also worked out a model of psychological accompaniment of formation and development of motivation towards pedagogical activity (Csikszentmihalyi M., 1975, Horner M.S., 1972).

In general, the work has set forth a range of new problems, dealing with perspectives for more full preparation of pedagogical institutions' students to teachers' work, and also perspectives for creation of conditions giving a possibility for a teacher personal potential self-realization (Lekerova G.J., 2015).

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