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## Personal anxiety of pupils in conditions of the computerized education as a pedagogical problem

*The article is devoted to studying of personal anxiety as one of the factors influencing efficiency of education process, a problem of personal-sense development of pupils having inadequate level of personal anxiety. It is defined a necessity of creation of effective system of pedagogical support of pupils with different level of personal anxiety in conditions of the modern computerized education. There are described the creation principles, methods and results of approbation of a system of pedagogical support of pupils, developed on the basis of results of the conducted psychological-pedagogical research of interrelation of a level of anxiety of pupils and various personal characteristics (level of self-appraisal, motivation, orientation of personality, cognitive values).*

**Key words:** *personal anxiety, pedagogical support, informatization, sense formation.*

Using of computer technologies in education system gives new possibilities and makes new demands to organization of educational process at school and high school. In this connection, the special importance there gets search of new ways of organization of educational and upbringing work with pupils.

Along with that the computer technique is considered as means of increase of efficiency of pedagogical activity and educational-cognizing activity of pupils owing to specific possibilities of its application (help in ensuring of the individualized education; deliverance from labor-consuming, same operations; expansion of possibilities of a teaching material granting; possibility of increase of motivation of education and active involving of pupils into educational process; change of the form and quality of knowledge control), a work part basically can't be transferred to the computer as it demands creative cogitative activity of the teacher: the analysis of errors' reasons of pupils, operative modification of educational process and technique of studies' carrying out, adaptation of a teaching material and a studies' plan to individual abilities of a concrete pupil, differentiated delivery of a teaching material depending on a character of relation of the pupil to a subject's content, choice of necessary level of detailed elaboration at a material's explanation, conducting of discussions, encouragement of reasoning). Moreover, the personal computer can't replace that gives live communication of the teacher with the pupil: "live cooperation, emotional culture, esthetics and ethics of relations" – all it remains behind the limits of the computerized education [4, 14].



Modern process of the computerized education can influence development of personality of pupils and results of their educational activity negatively (O.V. Doronina, A.M. Bokovikov, etc.). In conditions of educational process when the pupil is leaved to his own resources at computer work, there can be actualized personal problems to which number it is possible to concern inadequate level of personal anxiety. Therefore, at a whole perspective character of the computerized education, purposeful work on achievement of positive results in the sphere of correction of possible negative displays, the analysis of their influence on pupils' psychological health, studying of theoretical approaches to developing of methods of neutralization of negative conditions and optimization of the computerized education process, their practical realization seem to be urgent and necessary.

An anxiety problem was a research area of many psychological scientific schools. In all variety of ideas of anxiety's essence and nature they usually distinguish two directions [5]. Representatives of the psychodynamic direction (M. Klein, Z. Freud) assume that "anxiety is the realized experience with which it is connected an increase of ability to operate with danger by struggle or avoiding" [5, 8]. Other direction is the cognitive-behavioural one (G. Volpe, I. Sarason, D. Taylor, D. Watson, etc.): "anxiety, rather easily arising, further gets qualities of steady formations which are hardly changed by a retraining way" [5, 9].

At a whole sense distinction of the "anxiety" term, researchers use it more often in two major meanings which are interconnected, but concern different concepts: anxiety as a mental condition and as a property of personality [1]. In the first case the "anxiety" term means and is used for description of the unpleasant emotional condition which is characterized by subjective sensations of pressure, expectation of unsuccessful development of events. In the second case anxiety is understood as the feature, property of personality characterized by comparatively steady disposition of the person to perceive threat to "I" in various situations including such which don't predispose to this, and to react on them by strengthening of the anxiety condition. According to this, they traditionally are used to distinguish two types of anxiety: personal (anxiety as the person's steady feature) and situational (anxiety as the individual's reaction on a concrete situation).

The anxiety condition isn't always regarded as a disorganizing factor: in cases when anxiety experience reflects real trouble, anxiety is adequate. Adequate personal anxiety possesses adaptive, stimulating, sense forming functions: on the basis of emotional acceptance of educational activity process and active, realized relation to it, the pupil interiorizes cognitive values; there is a value relation to knowledge process, formation and development of a system of personal senses. Therefore rather urgent problem is search of ways of early diagnostics of inadequate level of personal anxiety and, the main thing, prophylaxis of the intense anxiety condition.

In educational institutions inadequate level of anxiety is caused by following social-psychological factors: style of communication of teachers with pupils, control and estimation of their educational activity from associates and parents, problems in



adaptation to changing conditions of education and its new forms (with use of information technology), status position of the pupil in group of contemporaries. To the factors defining a level of personal anxiety there concern personal characteristics of pupils: level of self-appraisal, self-criticism, need for achievements, communicative properties. Therefore it is a question of developing of methods of prognosis and indexes of anxiety taking into account specific features pupils, and of creation of effective methods of normalization (correction both overstated, and understated) of inadequate level of personal anxiety in modern conditions of education.

Inadequate level of personal anxiety is a destructive personal feature and adversely affects pupils' educational activity, reduces a level of intellectual working capacity, causes uncertainty in the forces (at high level of anxiety), superficial relation to educational activity and its results (at low level). Thus, in spite of the fact that to anxiety research they attach a great value, at present in scientific researches there is not put and considered the problem of "start" of sense formation processes among pupils, which are rather complicated owing to influence of inadequate level of anxiety.

Urgency of creation of a system of pedagogical support of pupils is proved by absence of a complex of concrete forms and methods of a corresponding purposeful psychological-pedagogical support of education process of anxious pupils in conditions of the modern computerized education. The analysis of the pedagogical literature shows that methods of support of education process of anxious pupils offered now don't consider the anxiety problem as a complex, i.e. considering in the basis not only pupils' individual-personal features, but also features of conditions of modern educational process and interaction of the pupil with teachers. Methods of the psychological-pedagogical support don't form the complete system on normalization of inadequate anxiety; they practically don't consider possibility of independent overcoming of inadequate anxiety by the pupil. Revealing of a complex of such methods, developing and approving on their basis of the system of pedagogical support of pupils with different level of personal anxiety were allowed due to inspection of senior pupils (128 schoolboys of 10, 11 forms) of average comprehensive schools.

An anxiety level of pupils was investigated by means of the tests "Personal scale of anxiety display" J. Taylor (adaptation of T.A. Nemchinova), "Diagnostics of a level of school anxiety" of Phillips: a self-appraisal level – by means of the test "Studying of self-appraisal of personality" of U.I. Kiselyov, educational motivation – by means of the test "Estimation of school motivation" of N.G. Luskanova; cognitive values of pupils, their educational preferences and value relation to studying were investigated on the basis of the author's questionnaire.

By results of the realized research of an anxiety level's dependence on indexes of various personal characteristics it is established that all pupils having high indexes on personal anxiety level have low level of self-appraisal (the factor of correlation of Pierson has made  $r = -0,74$ ;  $p < 0,001$  for personal anxiety and  $r = -0,65$ ;  $p < 0,001$  – situational anxiety). More often high level of school anxiety of pupils is supported by fear of examination situations (among 37 % of the interrogated high anxious schoolboys



there are high indexes on this parameter, among 48,2 % – very high). Among 66,7 % of high anxious pupils have problems and fears in relations with teachers, 57,1 % of anxious pupils are afraid not to correspond to expectations of associates (have high level of anxiety concerning estimations given by associates), 54,3 % of high anxious schoolboys have fear of self-expression, among 60 % there is frustration of need for success achievement. An anxiety level of pupils also depends on a motivational complex's optimality in course of educational activity: at increase of an anxiety level (beginning from the average), a level of educational motivation decreases ( $r = -0,71$ ;  $p < 0,01$  and  $r = 0,59$ ;  $p < 0,01$  for indexes of personal and situational anxiety accordingly), 20 % of pupils with high level of anxiety have low educational motivation, 31,4 % – negatively attitude to school and studies, have disadaptation in relation to educational process; pupils with lowered anxiety level have average level of motivation (positive relation to the educational institution, but it mostly attracts by non-studying parties); pupils with average (moderate) anxiety level (personal, situational) have good educational motivation, high level of educational activity. I.e. a correlation curve of interrelation of anxiety levels and educational motivation looks like a normal (Gaussian) curve. With growth of personal anxiety level there is a tendency of strengthening of personal orientation (orientation on self owing to which pupils are mainly guided by activity's estimation, instead of process of its effective, personally significant performance) and easing of orientation of the person on activity and its results (aspiration to knowledge, new skills' mastering are decreased). Pupils having high personal anxiety level prefer to choose typical problems owing to unpredictable result and necessity to be responsible, despite of need for choice and decision of non-standard tasks; among low anxious pupils at available possibility (emotional readiness) of choice of non-standard problems there is no such desire.

The research data testify that inadequate level of anxiety is based on inadequate self-appraisal level (inversely proportional dependence) which, in turn, is based on motivational difficulties which pupils face in course of educational activity. These results from the fact that pupils carried to a category of high anxious are inclined to perceive threat to self-appraisal and educational activity in an extensive range of situations, to react rather expressed anxiety condition; low anxious pupils are passive, inert.

The analysis of indexes of education success and personal characteristics unequivocally allows to say that poor progress of pupils is connected with problems of personal character arising owing to influence of inadequate anxiety level (with increase of a personal anxiety level, beginning from the average, the average estimation on progress decreases:  $r = -0,58$  at  $p < 0,01$ , – thus even among advanced in studies pupils there are often observed expressed displays of anxiety) and with those conditions in which their education, upbringing and development proceeds.

On the basis of the aforesaid there have been chosen and developed methods; there have been developed and approved a model of organization of individual educational trajectories of pedagogical support of pupils with different level of personal anxiety in conditions of education with use of information technology. An individual



approach to each pupil became the main principle of pedagogical support; the purpose was creation of psychological-pedagogical conditions for development of personality of pupils in educational process, promoting their fuller realization of personal and mental potential; as the object of pedagogical practice, thus, there acts not only education but also personal-sense development of pupils in educational process conditions, and also their psychological development, including an independent.

First of all, organization of educational process with application of information-communication technologies should be carried out in conditions of constant communicative interaction of the teacher and pupils, – within the limits of information-communicative education at which application of computer technologies is carried out at observance of the following psychological-pedagogical conditions: optimum combination with an integral educational and upbringing process, expediency of application at each step of education, active interaction of the teacher with pupils, account of their physiological and psychological features. There are necessary additional efforts of the teacher on organization of interaction with pupils, revision and perfection of ways of influence (educational and, especially, developing) on pupils, preservation of a dominant role in educational process: even if pupils work with information technology the teacher should cooperate with them, occupy an active position within the limits of interaction the computer – the teacher – the educated. In conditions of information-communicative training it is realized the system of pedagogical support of pupils with different personal anxiety level, called to help pupils in adaptation to changing conditions of educational environment at different stages of educational process and at transition from one step of education to another, promoting creation of favorable conditions for development of positive emotional-sensual and sense spheres of pupils, their informative and creative abilities. Thus the developed system of pedagogical support of pupils, focused on different levels of personal anxiety, possesses the following features:

- it is based on organization of individual educational trajectories of education and development: for pupils with low level of personal anxiety there are used problems of high level of generalization for creation of conditions of personal sense finding, for pupils with high level of personal anxiety it is shown a various content for removal of negative emotional condition of anxiety; the education content thus is based on subjective experience of pupils for which disclosing in educational content there is a various vector of problems, “technologies which are based on personal-sense preferences which appear the most effective in development of pupils’ sense formation” (I.V. Abakumova) are applied;
- it includes a complex of methods focused on neutralization of negative emotional conditions and initiation of sense formation in educational process: methods directed on increase of efficiency of interaction of the teacher with pupils (the teacher’s correction of his personal features, development of empathy and skills of introspection, effective communication; application of various emotionally saturated pedagogical means providing positive emotional experiences of



pupils: cheering up, humour, encouragement, etc.); methods directed on pupils' mastering of skills of an optimum condition, correction of personal features [3]; methods of pupils' independent overcoming of problems of personal character (development of adequate self-appraisal, motivation, regulation of mental condition (anxiety condition)) [2].

Improvement of adaptation to educational process conditions of pupils' with inadequate level of personal anxiety, perfection of their abilities to education is promoted by overcoming of social isolation, expansion of a sphere of interaction with contemporaries (organizational-activity and role games). It is important to underline that a necessary condition of realization of the system of psychological-pedagogical support of pupils is ability and readiness of the teacher for professional and comprehended work, including work with a value-sense sphere of pupils having inadequate anxiety level.

Efficiency of the teacher's activity in the system of pedagogical support of pupils with different personal anxiety level in conditions of information-communicative education is reached by application of computer technologies directed on actualization of pupils' sense of satisfaction from intellectual and informative activity, creation of a positive emotional background of educational activity (occurrence of pleasure of discovering something new, anticipation of expectation of interesting work, performance of an unusual task).

The spent pedagogical experiment shows that applied methods of pedagogical support of pupils with different personal anxiety level promote neutralization of adverse emotional-activity states of pupils, raise results and efficiency of education:

- the number of senior pupils with high personal anxiety level in the experimental group by the end of the 11th form has decreased (from 33,9 % to 27,7 %), in the control group – has increased (from 33,4 % to 39,7 %); the number of schoolboys with low level of anxiety in the experimental group hasn't changed (7,7 %), in the control group – has decreased (from 7,8 % to 3,2 %), thus indexes of very low anxiety in the experimental group of senior pupils were less often met, than in the control;
- a level of educational motivation of senior pupils in the control group has slightly decreased (from 16,33 to 16,21 points) while in the experimental group has raised from 16,41 to 18,92 points ( $p < 0,01$  by Student's t-criterion for the dependent samples) that we connect with normalization of a personal anxiety level in conditions of information-communicative education;
- a level of communication of the experimental group's pupils with the teacher has raised, on 6 % there has increased the number of schoolboys considering it is necessary to carry out discussions at lessons that expresses their great need for interaction with the teacher.

The results of approbation of the system of pedagogical support of pupils speak about its efficiency, show possibility of pupils' personal development, and also a necessity of carrying out of a corresponding pedagogical work.



Thus, at daily educational process the modern computerized education should be aimed at realization of the differentiated approach to pupils with different level of personal anxiety, timely render of necessary help, promote development of the sense sphere and fuller realization of the personal sense potential of pupil. Then information-communication technologies would become a good assistant to the teacher, would help to improve his style of work, would raise pupils' interest and promote the best adaptation of pupils with inadequate level of personal anxiety to educational process.

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