The Psychological Predictors for Self-Disclosure of High School Students' Abilities (E.G. Eleventh-Graders of Vladivostok School)

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Abstract. The article presents a study of the predictors for successful self-disclosure of high school students' abilities in the 11th grade. The main categories of research are presented. We substantiated the problem of the uncertainty for predictors in the context of self-disclosure of the high school students' abilities. The definition of the concept of self-disclosure of abilities is given, which is the result of a dialogue with oneself, due to which high school students understand what abilities are peculiar to them. The success of self-disclosure of abilities reflects the coincidence of abilities, chosen as one's own, and ones, obtained using psychodiagnostic techniques. It is assumed that abilities predetermine a choice of the appropriate type of activity that brings satisfaction, makes it easy to navigate professional activities and succeed in it. The analysis of domestic research studies is presented, within which a methodology for the study of abilities by English-speaking authors is presented, that, despite differences in terminology, discovered a number of interesting facts. The results of an empirical study conducted on a sample of 30 eleventh-graders are shown. The predictors of successful self-disclosure were the reflective components of the personality, the acceptance of oneself, one's personal values, stable inherent worth, responsibility, the kinesthetic type of intelligence, and practical skills. The teacher's assistance, supposedly instructive in nature, prevents the successful self-disclosure of the high school students' abilities.

1. Introduction

A person's life is determined by many choices that they make in a relatively wide range of situations. One of the important choices is the one of a future profession. Especially sensitive for eleventh-graders is the problem to choose the professional direction. They must correctly determine what exams to take from the range of the Unified State Examination. The difficulty lies in the fact that the same list of exams is associated with different types of professions.

The process of self-determination takes place in different ways: sometimes it occurs quite early in childhood or adolescence, but often a high school student finds it difficult to choose exams (and professions). It is the eleventh grade that becomes the most difficult period for schoolchildren, because oppression of choice, teachers and parents' fears and worries - everything can destructively affect the student's psyche, and as a result, the USE and the situation around it becomes a traumatic factor for the graduate and makes professional choice difficult.

Within human interaction with the profession, an important factor is motivation, satisfaction while implementing the activity that is planned as professional. Abilities for a particular type of activity are manifested in different conditions, at different age periods, and under the influence of a wide range of

factors (V.S.Chernyavskaya, A.A.Tokmakova 2018). Abilities, more precisely, their presence, in a child are not recognized for a long time and are not regarded as they are.

The process of understanding takes place in approximately such dialogue with oneself: "I can easily do (something), I like it, I have the ability." That is, the disclosure of their abilities for themselves is the result of a dialogue with themselves about their abilities. A dialogue can be more successful when high school students are sensitive to themselves, their feelings, values, interests, in this case external factors have less influence. Most often, this happens in adolescence, when rare students are positive about themselves and are not affected by peers and popular culture. A successful option for self-disclosure of ability is one which coincides with the person's true abilities that can be found by other people. The problem of the uncertainty of the predictors for successful self-disclosure of high school students' abilities, which we solve in this paper, can be expressed with the help of three questions: 1. What determines the success of self-disclosure of abilities?

2. What are the predictors for successful self-discovery of abilities?

3. What affects the results of self-disclosure of abilities, the personal qualities of a high school student or teachers, parents, peers?

For a school teacher, the formulation of goals and objectives is now a problem link. Previously, the lesson's goals were related to the teachers themselves: "explain", "show", etc. Now the subject of their activity should be the students' abilities and competencies. The teacher should have knowledge on how to help to develop the school graduates' abilities and competencies. They become the goals and results of education. The teacher in the 11th grade sets as a goal the successful completion of examinations by students in their educational field. In this case, the teacher unfolds as the main motive of power, in contrast to the motive of altruism, which prevails among the development-oriented teacher (N.A. Aminov 1998). A modern teacher should recognize the decisive role of the environment for the development of abilities in the organization of the educational process, be able to design and implement strategies for their development (L.S. Vygotsky 2003).

According to N.A. Aminov, creating conditions for the development of the student's abilities, presented as goals, is rare among teachers, but it is the basic foundation of pedagogical giftedness. The dynamics of abilities, as one of the key goals of modern education.

In domestic science, there are two main approaches to the consideration of the problem of abilities. The personality-activity approach (S. L. Rubinstein 2002, B. M. Teplov 1985, A. N. Leontiev 1995) and the functional-genetic (V. D. Shadrikov 2010, E. P. Ilyin 2008).

The fundamental theory of the problem of abilities was first developed by S. L. Rubinstein. He considered abilities as a complex formation, consisting of a combination of person's properties and qualities, ensuring the person's suitability for any socially useful activity. The material basis of abilities consists in the innate features of the human neuro-brain apparatus. The development of abilities is based on various psychophysical functions and mental processes. According to S. L. Rubinstein, the development of abilities is a spiral: the ability of one level further opens up the possibilities necessary for the development of abilities of a higher order. The mechanism of formation of abilities S.L. Rubinstein saw as a result of consolidation of mental processes through which actions and activities are regulated. S.L. Rubinstein noted that abilities are not limited to the knowledge, skills and abilities that a person possesses, but at the same time they are mutually conditioned: abilities act as a prerequisite for mastering knowledge, but in the process of mastering knowledge, new abilities are formed. An important difference of the idea of abilities in the works by S. L. Rubinstein from other researchers is the orientation toward the human historical development in the process of labor activity, i.e. the historical development of spheres of human activity gave rise to new abilities.

Especially significant for our work are the theoretical propositions developed by B.M. Teplov (B.M. Teplov 1985). He rejected the understanding of abilities as some person's innate features. In turn, the researcher believed that abilities are individual psychological characteristics. B.M. Teplov considered anatomical and physiological features as congenital - inclinations that play a direct role in the development of abilities. Firstly, abilities are individual psychological characteristics that distinguish one person from another. Secondly, abilities are individual characteristics of a person

related to the success in any activity. Thirdly, abilities cannot be reduced to those knowledge and skills that have already been developed by a person in the past. B.M. Teplov noted that abilities provide the ease and speed of acquiring knowledge and skills. B.M. Teplov, like S.L. Rubinstein, argued that ability cannot arise outside of any activity. Moreover, the researcher believed that abilities not only manifest themselves in any activity, but also are created in it. Abilities in the process of a person's life change, acquire a different character, depending on what abilities a person has and what is their level of development. According to B.M. Teplov abilities are something dynamic, the existence of which is possible only in process and movement.

V.D. Shadrikov, considers abilities in three dimensions: the individual, the subject of activity and personality. The individual's abilities reflect the biological essence of a person. According to V.D. Shadrikov, abilities are the properties of functional systems that implement mental, cognitive and psychomotor functions, manifested in the successful development of the outside world.

Let us consider the foreign experience of research on this issue. Despite the fact that such a concept as "self-disclosure of abilities" in its direct Russian-English interpretation does not appear, since the English-language "self-disclosure" is used in the meaning of "one's self-disclosure in society," that is, "disclosure their personal qualities for others", not abilities, but rather, their personality in a communicative context. Of course, the difference in the understanding of self-disclosure of abilities negatively affects the results of a search for information in the English-speaking environment. Having made this remark, we proceed to directly research.

Since this study is dedicated to high school students, the peculiarity of self-disclosure of their abilities is the aspect of the strong influence of the school environment: the educational system, teachers and peers - and the teachers' work in assisting self-disclosure of abilities here may not be the last thing. However, how do school teachers themselves evaluate the development of students' abilities? The study, which was attended by twenty high school teachers, was tasked with identifying how well they understand what giftedness is, and how they understand how gifted high school students should be trained. The study showed that teachers believe that pedagogical support for the gifted is a necessary measure, because parents and students lack the competence to do this on their own, and also believe that more gifted teachers have a natural basis for building favorable personal relationships with students. Also, the study showed that giftedness is usually perceived by teachers as an innate feature that needs to be developed.

Self-disclosure of abilities, as a rule, is evaluated in the context of a certain level of giftedness. In a case study of 2015 conducted for three 12-graders (which corresponds to the 11th grade in a Russian school. It is obvious that self-disclosure of abilities is impossible without the "strain" of these abilities during the educational process. Interest in one or another subject is dictated by the fact that they may be relevant to the students' future careers (Schmitt and Goebel, 2015). However, gifted students noted that often subjects do not have a "high level of challenge", and usually only about 30% of the time, spent at school they noted as the time spent with interest (ibid.) Thus, the authors of the study affirm that the school can both foster and retard intellectual development of high school students.

We can believe that the self-disclosure of certain abilities can have a positive effect on school activity, as well as on positive relationships with peers. The 2017 Turkish study, which was attended by 269 girls and 246 boys (grades 9 to 11), showed that the greatest correlations were found between academic performance and fear of failure ($r = -.27$; $p < .001$); between relationships with peers and fear of failure ($r = -.09$; $p < .005$); between absenteeism and academic performance ($r = -.19$; $p < .001$); between absenteeism and school participation ($r = -11$; $p < .005$); relationship with peers and performance ($r = .11$; $p < .005$); between school participation and peer relationships ($r = .14$; $p < .001$). The correlations are not too large, but show that relationships with peers are an important factor that can predict academic performance, as well as the frequency of absenteeism. (Kızıldağ, Demirtaş-Zorbaz and Zorbaz, 2017) It can be assumed that the inability to reveal their abilities leads to the fact that students lose good relations with their peers, worsen academic performance, which leads to absenteeism, then prevents the graduate from normal socializing. Relations with peers can hardly be built without high communication skills and abilities, which, in turn, can be developed by various

methods. So, in the 2014 study, it is shown that when teaching high school students communicative instructions SSI (Socioscientific Issues - "socio-scientific problems") this training contributed to the development of the ability to develop active statements related to the abilities of high school students, however, only at the limit of statistically significant level (Chung et al, 2014). Effective communication also requires the ability to understand the key ideas of communication partners, as well as the context in which people frame their ideas (Trenholm, Jensen, 2008).

Returning to the question of teachers' help in the direction of self-disclosure of abilities, here we can say that high school students can successfully carry out self- disclosure of abilities when they possess metacognitive knowledge about the educational process in which they participate (van Velzen, 2013). For obtaining metacognitive knowledge, as well as for self-disclosure of abilities, the factor of reflective thinking is important. Reflective thinking is an important feature of academic performance, and is directly related not only to individual educational achievements, but also to the ability to "learn how to learn." Thus, it can be assumed that metacognitive knowledge and competencies, as well as reflective thinking, play a direct role in self-disclosure of high school students' abilities.

2. Materials and methods

The total sample of the study included 30 people, all students were in the 11th grade, the study was conducted in the fall of 2018, when the students faced the important task of determining the subjects of the exam. The methodological support of the research was made up of the following methods: a questionnaire containing 17 questions aimed at assessing by high school students the availability of certain abilities, help in revealing these abilities on the part of parents, teachers, friends, or independently detecting them, including by overcoming any difficulties. An essay content analysis was also conducted. High school students were asked to write an essay on the choice of subjects for passing the exam, substantiating their choice in terms of their randomness or awareness, leadership of the process by reference people, as well as a description of the chosen direction of preparation at the university, their attitude to it, and forecasting the significance of their development in this direction. The psychodiagnostic research method was presented by the following methods: professional preference questionnaire by G. Holland, type of intellect (self-evaluating option) by G. Gardner, "Scale of Existence" questionnaire by A. Langle, A. Orgler, and a methodology for learning motivation and emotional attitude to learning in modification by A.D. Andreeva. Understanding of their abilities by high school students was assessed through analyzing their ideas about the presence of certain general and special abilities and a high level of independence in their discovery.

We carried out a multiple regression analysis of the empirical results obtained in a group of high school students of the Vladivostok gymnasium in order to identify the dependence of the success rate of self-disclosure of their abilities by themselves on internal and external parameters, namely: personality type by J. Holland, type of intelligence by G. Gardner, expression of existential motivation, motivation of learning and emotional attitude to learning, as well as help from parents, teachers, the severity of objective difficulties. Thus, we tried to reveal psychological predictors for self-disclosure of high school students' abilities.

3. Results of the study and the discussion

As a successful option for self-disclosure of abilities (hereinafter referred to as self-disclosure of abilities), the coincidence of the understanding of one's abilities and the results of diagnostic data was considered. Next, a regression analysis was performed.

According to the results of the regression analysis, it was revealed that predictors (independent variables) affecting the process of successful self-discovery of high school students' abilities are a set of indicators: "teacher's assistance", "responsibility", "logical-mathematical intelligence" and "kinesthetic intelligence". The resulting model describes 65% ($R2 = 0.652$) of the distribution of the dependent variable "self-disclosure of high school students' abilities." The strength of the relationship between dependent and independent variables is high ($R = 0.807$) (Table 1).

Table 1. A generalized model of self-disclosure of abilities by high school students.

Model	R	R-squared	Offset R-squared	Standard estimation error
1	0,807	0,652	0,596	0,89063
a	Determinant: teacher's assistance, responsibility, logical-mathematical intelligence, kinesthetic intelligence			
b	Dependent variable: self-disclosure of abilities by high school students			

The change in the dependent variable can be predicted by the formula, which includes a constant value (constant) and coefficients of independent variables:

Self-disclosure of abilities by high school students = 1,479 – 1,403*Xt. ass. + 0,072*Xresp.– 0,739*X l.-m. int. + 0,620*Xkin. int.

where Xt. ass. – teacher's assistance, Hresp. - responsibility, Cl.-m. int. - logical and mathematical intelligence, Hkin. int. - kinesthetic intelligence.

Thus, the results of self-disclosure of abilities by high school students are all the better (the students recognize (reveal) their abilities in high school) if they:

1) less focused on teacher's assessments and advice regarding their abilities;
2) if they have inherent logical and mathematical abilities,
3) the more they are responsible and possess practical skills;
4) the more they have developed kinesthetic abilities.

At the same time, the leading component is teacher's assistance, as its coefficient in the formula is the most significant, but due to the fact that it is negative, it has an opposite effect on the dependent variable. Table 2 presents a detailed model of the influence of personality's psychological parameters on the success of self-disclosure of high school students' abilities.

Table 2. Coefficients for the prognostic model of the influence of psychological parameters on self-disclosure of high school students' abilities.

Model		Non-standardized coefficients		Standardized coefficients	t	Relevance
		β	Standard error	Beta		
1	Constant	1,479	,829		1,784	,001
	Teacher's assistance	-1,403	,339	-,499	-4,141	,000
	Responsibility	,072	,016	,546	4,477	,000
	Logical and mathematical intelligence	-,739	,164	-,581	-4,515	,000
	Kinesthetic intelligence	,620	,165	,484	3,761	,001
a	Dependent variable: self-disclosure of abilities by high school students					

The forecast of the influence on the self-disclosure of the high school students' abilities is connected, firstly, with minimizing the teacher's assistance. Presumably, the schoolchildren meant help by means of edification and a motive of the teacher's power, which prevails, according to N.A. Aminov among teachers with their orientation to the result (in contrast to the orientation to development). Secondly, responsibility, as a personal quality, is expressed in the case of self-confidence and the connection of adequate self-understanding and the results of one's activities. Thirdly, the kinesthetic type of intelligence is manifested in the effective handling of one's body, in a good perception of time and space, in self-confidence. The negative factor, the predominance of

logical and mathematical intelligence, is explained by the fact that the abilities associated with it are reflected with great difficulty, since they have no practical refraction and are applicable to a wide range of different types of activities. In this case, the high school students can abstractly reason, but not come close, therefore, to their individual trajectory of abilities, since the results of such activity are almost impossible to detect. Under certain conditions, this type of ability can be perfectly realized at a different level of professionalization.

Figure 1 graphically depicts the relation between the dependent and independent variables, obtained on the basis of regression analysis.

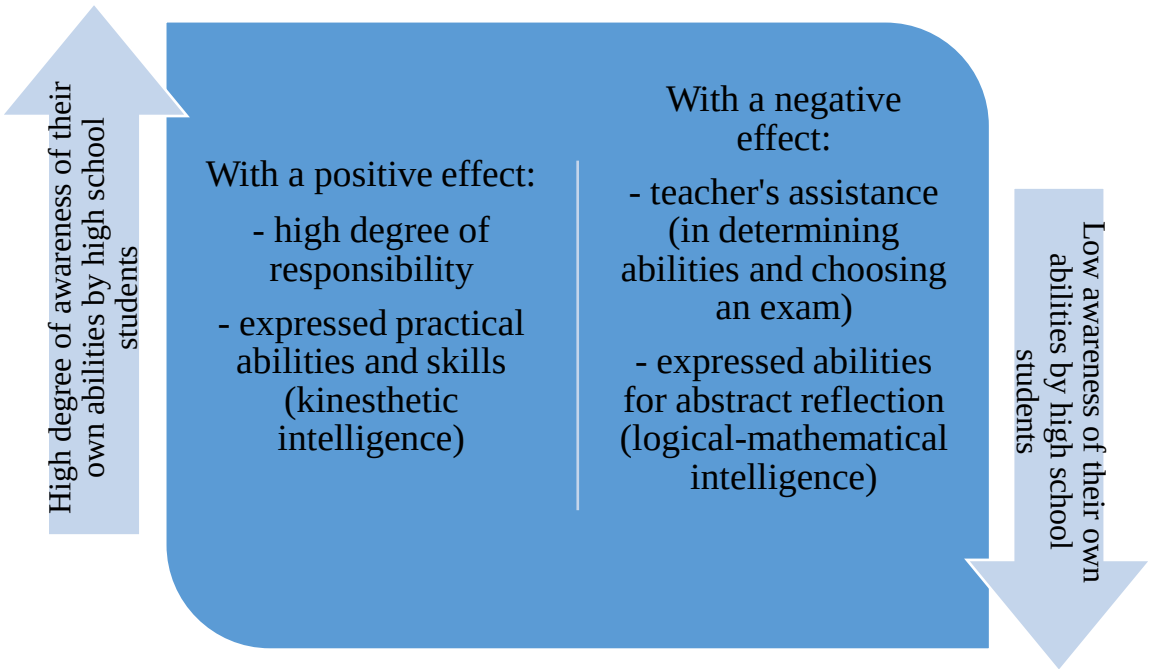

Figure 1. Predictive model of the influence of the identified psychological predictors on self-disclosure of high school students' abilities.

The results of the study showed that self-disclosure of abilities by schoolchildren - as revealing them by oneself for themselves - will be more successful if the high school students are inherent in accepting their personal values and the ability to complete the decisions made on their basis, which is based on an understanding of the need for these actions to oneself or duty to others. In this understanding, responsibility is manifested in the students' sense of confidence that everything they do is correct, of stable self-worth. Practical skills of a schoolchild also contribute to self-disclosure of abilities, which is probably explained by a higher ease of discovering these abilities, they are actively manifested as a result of practical activity: high school students are able to do something well, it is noticeable to them and others, it is objective.

The teacher's assistance, on the contrary, prevents students from self-disclosing their abilities, which is probably due to the directive that accompanies the so-called teachers' "predictions", the obsession of opinion, this contradicts the manifestation of one's self, will and activity. Also, an obstacle to self-disclosure of abilities is the high school student's ability to abstract thoughts, which is possibly due to personal characteristics inherent to their carriers, namely introversion, frequent deep thinking, focus on solving abstract problems - this can impede reflection and cogitativeness on one's own abilities.

4. Conclusion

The problem of predictor uncertainty posed in our study was solved on the results of a group of 30 eleventh-graders from the Vladivostok gymnasium.

The success of self-disclosure of the high school students' abilities in the eleventh grade is largely determined by the level of self-confidence, acceptance, responsibility, kinesthetic type of intelligence. They hinder the successful self-disclosure of teachers' edification and their attempts to influence the students; the predominance of the logical-mathematical type of intellect in the students, which "leads" they away from the reflective path, without giving certainty, support for understanding their abilities. It is also possible that the abilities of this type at this stage of age development are unclaimed, which can be determined by the predominance of clip consciousness, practicality, and pragmatism. Since it is extremely difficult to capture the results of abstract logical thinking, the appropriation of these results is difficult.

The results obtained allow us to determine in what direction high school students should be helped so that they can better understand their real, true professional paths and abilities.

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