

Original scientific paper

UDC:  
37.018.43:004.738.5(470)"2022"

Received: August 15, 2023.

Revised: November 02, 2023.

Accepted: November 10, 2023.

 [10.23947/2334-8496-2023-11-3-461-473](https://doi.org/10.23947/2334-8496-2023-11-3-461-473)



# Motivation, Intensity and Quality of Educational Activity of Russian Schoolchildren in Online Learning

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**Abstract:** The article analyzes the possibility of transitioning a general education school to an online learning format. The indicators are such categories as educational activity, quality of education, intensity of education, learning motives. To achieve this goal, a sociological survey of high school students in Rostov-on-Don (Russia), as well as their parents and school teachers, was conducted. The last two groups of respondents are presented in the status of experts. Based on the analysis of empirical data, the following conclusions were made. More than half of all high school students surveyed (66.6%) expressed their intention to continue the online learning experience they received during the response to the COVID-19 epidemic. However, the conjugations of willingness to study online with the categories "learning motives", "quality of education", "intensity of education" showed that the high motivation declared by high school students for the learning process does not correspond to their real behavior in distance lessons. The main motive for choosing online education for high school students is the convenience of this format of education. The survey showed a low degree of significance of other reasons for choosing online education. Preferences for online convenience and the desire to learn asynchronously reflect the unmanifested goal of getting out of the teacher's control in order to reduce their educational activity. It can be assumed that this is due to the social immaturity of high school students and the lack of understanding by most of them of the value of secondary education. Based on the analyzed data, three approximately equal groups of respondents were identified. In the first group, high school students are focused on the standard school-lesson system with elements of e-learning (40% of respondents). In the second group, the advantages of online learning are articulated, which are associated with convenience and greater resource potential compared to classical learning (35% of respondents). The third group represents the interests of high school students, who are not so much interested in the format of education as the opportunity to get out of the control of the teacher and find themselves in a convenient educational environment to simulate learning activities (25% of respondents). This means that online learning format, the usefulness of which is obvious only if students have a stable cognitive activity, is unacceptable for most high school students.

**Keywords:** online learning, quality of education, intensity of education, learning motives, high school students, pedagogues, parents.

## Introduction

Online learning has been attracted close interest from scientists for last two decades. It is caused by new information and technical possibilities of organizing educational work in a remote format. Modern technologies provide instantaneous transmission of educational information over a distance and maintain synchronous audiovisual contact between the teacher and the student. Thanks to new technological opportunities, a teacher in the classroom is no longer considered by a certain part of society as something mandatory for receiving a quality education. This part of society represents online learning as a modern educational model that fully meets the requirements and demands of the time. This position is reflected in scientific discourse (Golovanova, 2019; Grechushkina, 2021; Smirnova, 2019). However, many scientists support an alternative point of view, according to which online learning is seen as a threat to high-quality,

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intensive educational process (Ivanova and Murugova, 2020; Kuznetsov, 2020; Kovalev and Latsveeva, 2021).

It would be wrong to reduce the problem of the relevance of online learning in high school only to the technological aspect. The consciousness of children is not a computer program that can be filled with all the information necessary for life through technical communication channels. The main question is whether Russian schoolchildren have cognitive activity sufficient for the emergence of intrinsic motivation for learning activities. Depending on the answer to it, scientists determined the prospects for the development of e-learning in high school. In essence, this means that it was through the fact of acknowledging or denying motivation that the very possibility of transferring schoolchildren to the digital learning format was assessed. When answering this question, all experts are divided into two large groups: the first unites scientists who support assertion that schoolchildren are intellectually and socially ready to switch to online lessons – in their opinion, the majority of students will not lose motivation (Said, 2018; Solovieva and Semenova, 2020; Razmacheva, 2021; Kozitsyna, 2021). A different position is held by those who do not see high school students as having sufficient cognitive activity to switch to remote mode (Markeeva, 2020; Bakaeva, 2016; Nishanbaeva, 2021). The second point of view currently prevails in the scientific community.

The study of the established scientific discourse, however, showed that Russian sociologists had not conducted empirical sociological research on the study of the motivation, intensity and quality of education of high school students. The present work aims to close this gap in science.

## Materials and Methods

The theoretical and methodological foundations of the study are based on the approach developed in the course of the joint scientific work of V.I. Chuprov and Yu.A. Zubok (Zubok and Chuprov, 2020; Chuprov and Zubok, 2008). The authors call it polyparadigm, uniting the most interesting results achieved in the previous scientific tradition in study of youth. In the framework of the scientific activities of these Russian sociologists, the most significant features that form the sociological definition of youth as an age group were integrated. "The variety of these features determines the complex internal structure of youth, its differentiation and differences, in which its essential properties are revealed. These are the transition of social status, lability, extremeness, transgressiveness of consciousness, increasing globalization and new forms of standardization" (Zubok and Chuprov, 2017). These characteristics have been detailed in the theoretical works of researchers. In them, young people are characterized by social instability, change of interests, mobile shift of value accentuations in the hierarchy of their own needs. The authors argue that the personal properties of this age group are extremely variable and this inevitably affects the properties of social interactions of young people. It is difficult for young people to fix their interest on one concrete thing, they need a change of impressions, a constant feeling of novelty.

It is necessary to say a few words about the author's categorical apparatus. It was developed in such a way that questions of the questionnaire together constituted a variable image of cognitive activity of high school students. The basic concepts differentiated in the questionnaire include: motives, needs, personality traits of a high school student, motivations for action, educational goals.

The empirical base of the study was formed on the basis of a mass sociological survey conducted by the authors in January-February 2022. Respondents who received personal experience of learning activities in online learning were interviewed. The study involved 860 high school students, 1246 parents and 636 teachers living in Rostov-on-Don. To increase the representativeness of the method used, the sample included the parents of the surveyed high school students and those teachers who had experience of teaching high school students online. Data processing was carried out in the SPSS-22 program.

## Results and Discussions

First, we evaluate individual feelings from the learning experience (work, control of high school students) during the period of self-isolation and social distancing. We will be interested in attitudes towards compulsory online learning.

**Table 1**

*Distribution of answers to the question: "What are your individual feelings from the experience of distance learning (working at school)?", %*

Set points	Answers		
	High school students	Teachers	Parents
1. I would like to continue – it is convenient for me	50,0	22,9	7,4
2. I would like to continue – it improves the quality of education	16,6	6,7	3,5
3. I am against online – quality of education is declining	33,8	64,3	49,3
4. I am against online – I do not like to study in this format	27,3	30,8	61,6

The results were partly expected, but quite revealing. More than half of high school students would not mind going back to remote mode. But, importantly, the vast majority of respondents who made this choice pointed to the convenience of online learning, rather than its ability to provide quality education. Meanwhile, for this variable, the respondents could choose two options. However, convenience was chosen by 50% of high school students, and only 16.6% expressed confidence that online learning gives a quality result. We cannot say that high school students are not interested in quality issues, because 33.8% chose the option "I am against online – quality of education is declining." Even more significant results were shown by teachers (64.3%) and parents (49.3%), denying the ability of online learning to ensure the quality of education.

The largest scale of rejection of online learning is shown by parents. Among them, only 7.4% chose the option "I would like to continue – it is convenient for me" (teachers - 22.9%).

Supporters of online learning prioritize the convenience of study (work) when choosing this form of education. Cautiously for the time being, we will make an assumption that even to the detriment of quality. But so far this thesis has no valid evidence.

In addition to quality, the ability to maintain a high intensity of learning activities in online learning should be recognized as significant. It is understood as the ability to perform a certain amount of educational tasks per unit of time, or the ability to engage in educational activities for a certain period of time, or both.

**Table 2**

*Distribution of answers to the question: "Did your intensity of learning activity decrease in conditions of online learning?", %*

Set points	Answers	
	High school students	Teachers
1. I (high school student) solved more educational tasks, because I find it more interesting and more convenient to study remotely	32,2	7,1
2. I (high school student) solved a smaller amount of educational tasks due to overwork, reduced teacher control and loss of the opportunity to receive teacher explanations in time	30,9	41,9
3. It is difficult to answer / It depends on the individual characteristics of the children	36,9	50,9

There is one important aspect of this variable that needs attention. From the table 1 it follows that more than half of high school students are aimed at continuing their studies online. Meanwhile, only 32.2% of them are convinced that the intensity of their educational activities has increased. It can be assumed with some degree of confidence that in this group there is a large stratum of respondents who perceive online learning as a way to reduce the intensity of learning activities.

Connecting with the question of evaluating one's attitude to online learning will help us understand the potential size of the group of high school students for whom the rejection of classroom-contact learning can be interpreted as cost minimization.

**Table 3**

*Conjugation of answers to the questions: "What are your individual feelings from the experience of distance learning (working at school)?" and "Did your intensity of learning activity decrease in conditions of online learning?", %*

Did your intensity of learning activity decrease in conditions of online learning	What are your individual feelings from the experience of distance learning (working at school)			
	1. I would like to continue – it is convenient for me (50,0)	2. I would like to continue – it improves the quality of education (16,6)	3. I am against online – quality of education is declining (33,8)	4. I am against online – I do not like to study in this format (27,3)
1. I (high school student) solved more educational tasks, because I find it more interesting and more convenient to study remotely (32,2)	39,3	59,3	4,9	10,9
2. I (high school student) solved a smaller amount of educational tasks due to overwork, reduced teacher control and loss of the opportunity to receive teacher explanations in time (30,9)	26,0	15,0	56,0	46,1
3. It is difficult to answer (36,9)	34,7	25,7	39,1	43,0

Some explanations for the Table 3: in the line record there are three groups in which the assessment of the results of the intensity of learning activities in the online learning mode is determined. Frequency distributions are given in brackets. The columns indicate the characteristics of attitudes towards their own experience of distance learning. The status of the variables has an entry in the columns, because we find out how much learning tasks are performed by high school students in each of the four groups of schoolchildren who assessed their learning experience in online learning.

The pairing results show the reliability of the data obtained. Those who negatively assessed their experience of online learning, for the most part, are confident in its low intensity. For example, in the group "I am against online – quality of education is declining" – 56.0% indicated a decrease in the intensity of study (36.1% found it difficult to draw conclusions). There is also a noticeable strong change in relation to the average distributions: in the group of high school students who oppose online because of the deterioration in the quality of education, the variant "I solved more educational tasks" was chosen by 4.9% (for the total sample 32.2%); and by the group of high school students who do not like to study online – 10.9% (for the total sample 32.2%).

Other distributions among respondents, where the online experience is rated positively due to its convenience. In this group, the attitude to the intensity of study in the conditions of online learning does not differ much from the average values for the entire sample. Here, 39.3% of respondents solved more



educational tasks (32.2% in the total sample). The increase in the number of high school students who successfully solved a larger amount of educational problems, as we see, is insignificant. But this is not even more significant. As you can easily see at the intersection of the first column and the second line, 26% of high school students from this group (online is convenient) chose the answer option "I solved a smaller amount of educational tasks due to overwork, reduced control by the teacher and the loss of the opportunity to receive teacher explanation in time". Moreover, the downward differences in the total sample are not significant ( $26\% < 30.9\%$ ). It is in this segment that you need to look for the bulk of high school students, for whom online is just a way to reduce the intensity of learning.

Equally indicative are the results in the second column group: "I would like to continue – it improves the quality of education" (16.6%). Deviations from the average frequency indicators are very significant. In this group, 59.3% of respondents are convinced that they solve a larger volume of educational tasks (32.2% in the total sample). The decrease in the intensity of learning is no longer as noticeable as in the group where online learning was chosen for convenience. Only 15% indicated the solution of a smaller volume of tasks (30.9% in the total sample). These 15% of high school students are also potentially adding to the cohort of those who are aimed at reducing the intensity of their studies.

Having dealt with the data obtained and revealed their reliability, we then calculate the approximate number of high school students for whom the rejection of classical education can be interpreted as a conscious decrease in the intensity of educational work. To do this is quite simple. The action will be performed in two stages, separately for the groups "online is convenient" and "online is qualitatively". The first group ("online is convenient") makes up 50% of the entire sample (Table 1). In it, 26% of respondents indicated a decrease in the volume of tasks to be solved, and 34.7% found it difficult to answer. Both of these figures should be divided by two, highlighting half of the respondents from the total sample. Consequently, 13% of all high school students surveyed chose online only for the sake of convenience, and 17.3% presumably also, at least in some part of their learning activities. The second group ("online is qualitatively") makes up 16.6% of the entire sample (Table 1). It indicated a decrease in the volume of tasks to be solved and found it difficult to answer - 15% and 25.7% of respondents. Relative to the general sample - 2.5% and 4.7%. Summing up the results for both groups, it turns out that 15.5% ( $13\% + 2.5\%$ ) of respondents chose online learning even in the face of a reflexive decrease in the volume of tasks to be solved, and 22% ( $17.3\% + 4.7\%$ ) conditions of non-reflexible decrease in the volume of tasks to be solved. Thus, their choice of the form of education in favor of online is not associated with the success of solving educational problems. That is, convenience is a value in itself, acting as a priority in relation to intensity. These figures are very symptomatic and indicate a high percentage of respondents (more than a third of the number of respondents) for whom intensity in training is not considered a significant choice and needs external motivation.

Returning to the data in the Table 2, we note that more than a third of the surveyed high school students (36.9%) found it difficult to determine the state of intensity of their educational activities. The reasons for this may be different, but it is important for us to understand that more than a third of the respondents demonstrate that they do not have the proper indicators for evaluating the effectiveness of online learning. This is important from the point of view of learning motivation, because in this selected group, motives lose their connection with the results of education. This group can be defined as not being indifferent to learning results, but not having the ability to objectively assess the intensity of their learning activities.

The teachers were extremely critical. Only 7.1% supported the position according to which the intensity of learning activity in the context of online learning is growing (the fact of a decrease was noted by 41.9%). It is hardly possible to question their expertise on this issue. Let us assume that teachers themselves work more effectively in the online format, and this is inevitably reflected in the growth of the intensity of involvement of schoolchildren in the educational process. At the same time, more than half of teachers (50.9%) felt that the intensity of online learning "depends on the individual characteristics of children." Such a high percentage of answers for this position suggests that the effectiveness of learning activities for some students in online learning is increasing.

We did not find out the point of view of the parents, because considered that they did not have expert competence on this issue.

Next, we will connect the issues of quality and intensity of educational activity with motivation itself. To begin with, we present the results of the simplest (frequent) measurement of the state of motivation in online learning.

**Table 4**

*Distribution of answers to the question: "Have you noticed in yourself (in high school students) a decrease in motivation for learning when switching to distance learning?", %*

Set points	Answers	
	High school students	Teachers
1. No, homeschooling is convenient	46,4	5,6
2. No, learning online is very productive / No, high school students in any form of education understand well why they need knowledge	10,8	11,4
3. In part, studying at home is difficult / In part, some definitely pretend to study	32,7	43,6
4. Yes, learning at home is almost impossible / Yes, learning at home leads to partly imitation of learning due to sharp decrease of quality	10,1	39,3

It is easily to see that the positions of high school students and teachers diverge quite strongly. The most important difference stems from the assessment of the relationship between convenience and motivation. 46.4% of the surveyed high school students are convinced of the growth or maintenance of the previous level of motivation, because "homeschooling is convenient". Only 5.6% of the teachers surveyed agreed with this judgment. This range of opinions can partly be explained by the fact that the students spoke about themselves, and the teachers gave an expert assessment. And the answer "some definitely pretend to study" looked much more attractive. Understanding the risks of underrepresentation, we added the ability to select two set points to the teacher question variable. However, this did not increase the popularity of choosing the first two options. Teachers did not see a significant relationship between convenience and increasing motivation.

Equally diametrically different is the position between the two groups of respondents and in the opposite position, according to which a decrease in motivation is claimed in the conditions of online learning (fourth line of the table 4). Only 10.1% of the surveyed high school students considered "learning at home is almost impossible". Among teachers, such categoricalness was supported by 39.3% of respondents who chose the option "learning at home leads to partly imitation of learning due to a sharp decrease in quality".

If evaluated by the aggregate, the least likely option was "online is very productive" (10.8%) / "high school students in any form of education understand well why they need knowledge" (11.4%). High school students and teachers were given markedly different definitions. Pupils were asked about the quality of online learning, teachers about the presence of certain personality traits in high school students, with which society associates the onset of social maturity. In fact, teachers spoke about the lack of social maturity among high school students, and schoolchildren ignored the category of "learning productivity" as significant for themselves.

From this position, let's turn to a meaningful description of the relationship between motivation and the assessment of the intensity of learning activity in online learning.

We have already measured the linear distribution with respect to the intensity of online learning (Table 2). Recall that among high school students, three groups of approximately the same size were distinguished, in which one part of the respondents (32.2%) showed confidence in the growth of intensity in online learning, the second indicated its decrease (30.9%), and the third found it difficult in the choice of answer (36.9%). Motivation was measured separately from intensity, and slightly more than half of the total number of students surveyed noted that it did not decrease online (Table 4).

Now we need to use the "intensity" criterion to characterize the degree of involvement in educational activities of both motivated and demotivated high school students. This will help test the validity of judgments about their high motivation in online learning environments. This must be done for two reasons. First, any judgments of schoolchildren should be subjected to critical evaluation. Secondly, the opinions of high school students and teachers are diametrically opposed. As a test criterion, the questionnaire included the question "How often did you do extraneous activities during distance lessons?". Variants of

the proposed answers for this criterion acts as given values. The answers to the question about motivation are in the status of the variables that are being measured.

**Table 5**

*Conjugation of answers to the questions: "Have you noticed a decrease in motivation for learning when switching to distance learning?" and "How often did you do extraneous activities during distance lessons?", %*

How often did you do extraneous activities during distance lessons?	Have you noticed a decrease in motivation for learning when switching to distance learning?			
	1. No, homeschooling is convenient (46,4)	2. No, learning online is very productive (10,8)	3. In part, studying at home is difficult (32,7)	4. Yes, learning at home is almost impossible (10,1)
1. I was not distracted at all, I was constantly included in the educational process (30,7)	35,8	31,5	14,1	12,9
2. It is hard to keep attention, but I tried (36,6)	33,1	43,5	43,1	25,9
3. About half the time I switched to my own affairs (19,6)	18,4	16,3	27,9	24,7
4. Most of the time minding my own business (8,5)	9,1	7,6	12,7	15,3
5. Included in the lesson only when my teacher addressed me personally (4,6)	3,6	1,1	2,2	21,2

In Table 5 we have four groups of respondents. The first consists of those who find it convenient to study online; the second unites those who chose the option "learning online is very productive"; the third is formed from respondents who considered that "studying at home is difficult"; the fourth was formed through the choice of the judgment "learning at home is almost impossible". The first two groups can be considered motivated in terms of online learning, the third is partially motivated and the fourth is demotivated. The data is contained in four columns. The given values for them are judgments that characterize the intensity of the educational activity of the degree of readiness of schoolchildren to be included in the educational process online. The purpose of this conjugation model is to check the reliability of the answers of high school students in Table 4, which shows that 57.2% (46.4% + 10.8%) of respondents (in the first two groups of motivated ones) stated that their motivation in online learning does not decrease.

As a hypothesis, it would be reasonable to assume that the intensity of education in the two motivated groups will be noticeably higher than in the partially motivated or unmotivated group. In addition, two groups of motivated schoolchildren should be expected, if not a 100% choice of the given value "I was not distracted at all, I was constantly included in the educational process", then at least within the limits of 60%–70%. However, this hypothesis was only partially confirmed. Yes, indeed, in the two motivated (in terms of self-presentation) groups, a significantly smaller part of the respondents were distracted from the educational process (the first line of Table 5). But this is not even half of the number of the first and second groups. In the first group, 33.1% chose the option "It is hard to keep attention, but I tried", and in the second group even more – 43.5%. 18.4% in the first group and 16.3% in the second "About half the time I switched to my own affairs". 9.1% and 7.6% and even "Most of the time minding my own business".

Let us calculate, according to the same scheme, according to which the data in Table 3 were calculated, the percentage of high school students from the total sample, who spent half or more of their time doing extraneous activities during distance lessons. There are 15% of those in the two groups of motivated people. To these can be added 20.2% of those who had difficulty concentrating in online classes. We remind that these percentages are not within the group of motivated high school students,

but from the general sample. Intragroup distributions can be seen in the Table 5.

These figures show that the high level of motivation among high school students who stated that they have no problems with motivation in the online learning format does not correspond to the real state of affairs. Obviously, this means that in the structure of the personality of high school students there are social qualities that do not contribute to maintaining motivation at a high level in the process of online learning.

We use one more criterion to test the subjectively presented ability to find intrinsic motivation in the conditions of online learning: "What online learning format do you prefer to study in?". Respondents were asked to choose three set points: asynchronous, synchronous, and regular school. Objectively, only highly motivated people can learn effectively in asynchronous mode, because in it a priori there are no external impulses to motivation. About synchronous online and standard school education, it is unreasonable to make unambiguous conclusions about motivation on the proposed grounds. Therefore, the unconditional willingness to go to a distance can be seen only among motivated supporters of online learning.

**Table 6**

*Conjugation of answers to the questions: "Have you noticed a decrease in motivation for learning when switching to distance learning?" and "What online learning format do you prefer to study in?", %*

What online learning format do you prefer to study in?	Have you noticed a decrease in motivation for learning when switching to distance learning?			
	1. No, homeschooling is convenient (46,4)	2. No, learning online is very productive (10,8)	3. In part, studying at home is difficult (32,7)	4. Yes, learning at home is almost impossible (10,1)
1. Asynchronous: without teacher, completely self-guided (22,8)	37,2	19,5	9,0	7,1
2. Synchronous: when a teacher at computer conducts a lesson as if in a classroom (28,0)	39,7	37,0	15,1	5,9
3. It is better to study in a regular class at school (49,2)	23,1	43,5	76,0	87,1

Presented in the Table 6 data give us the opportunity to clarify two positions. First, to find out if all high school students who find the online format convenient or productive want to abandon the standard school education. Secondly, does the awareness of the fact of a decrease in motivation in the conditions of online learning lead to a negative attitude towards the synchronous or asynchronous format of educational work.

We are going to answer the first question first. Remind that the group of high school students, in which motivation does not decrease in the conditions of online learning, is divided into two subgroups: in one group, motivation does not decrease, because online is recognized as convenient; in the second because of its productivity. It should be recognized that in the first subgroup (online is convenient), according to the results of conjugation, 23.1% chose the answer option "It is better to study in a regular class at school", and in the second subgroup (online is productive) 43.5%, that is almost half. Such distributions at least show that the intention to continue the online learning experience, which was stated by 66.6% of the surveyed high school students (Table 1), does not at all mean their abandonment of the classroom system. This aspect of the analysis gives us additional information to conclude that the first group of motivated is extremely heterogeneous. This was already noticeable from the data included in



tables 4 and 5. In this group, there is a fairly high percentage of those who are indifferent to both the intensity and quality of training. Some details on these aspects are given to us by pairing the question of motivation with the question of preferences for the format of training. Thus, an indicative downward trend is visible within the "motivated to online learning" group: of those who associate motivation with convenience, only 23.1% choose the intention to study at a regular school; where staying motivated online is associated with the "productivity" category, 43.5% of high school students would prefer to study in a regular school. We also consider it no coincidence that asynchronous learning is most often chosen by those schoolchildren who are primarily focused on the convenience of the online mode (37.2%). Those who have not lost motivation in the online format, but who associate it not with convenience, but with the growth of their own learning productivity, choose asynchronous learning much less often (19.5%). It can be assumed that such significant preferences for online convenience and the desire to learn asynchronously, in fact, reflect the goal that is not manifested openly to get out of the control of the teacher in order to reduce their educational activity.

With regard to the group where motivation in the conditions of online learning is lost or partially lost (the third and fourth columns in Table 6), everything is very clear. Those who have partially or completely lost motivation are aimed at studying in a regular class (subgroup "studying at home is difficult" - 76.0% and subgroup "it is better to study in a regular class at school" - 87.7%). However, in these two subgroups there is a small part of high school students who, even with motivation lost online, choose synchronous or asynchronous learning. Our calculations showed that it is 9.1% of the total sample. With a high degree of probability, we can assume that these are schoolchildren who are not interested in either the quality or the intensity of learning activities.

A significant result of the survey was the identification of three groups of high school students: 1) reducing the performance of online learning and opposing this format; 2) reducing the rates of online learning and advocating this format; 3) supporters of this format that increase the performance of online learning. In terms of size, the groups are approximately equal with some preponderance towards the first of the three. But these are schoolchildren's ideas. Let us check them through the expert judgments of teachers and parents.

**Table 7**

*Distribution of answers to the question: "Are high school students divided into those who are better off studying remotely and those who are better off studying in the classroom", %*

Set points	Answers of teachers
1. All children show the best results in online learning	5,9
2. Some high school students are better off studying online: homebodies, disabled, shy, highly motivated	43,1
3. Transition to online had a negative impact on the quality of education for all high school students	51,0

Teachers, in general, confirmed the presence of the three groups listed above, but the quantitative distributions turned out to be quite different. Thus, only 5.9% of the surveyed pedagogues indicated that "all children show the best results in online learning". At the same time, 43.1% of teachers confirmed that among high school students there are children who are disabled, homebodies, shy, highly motivated, who are better off learning in electronic format. And finally, the majority (51%) agreed with the opinion that "transition to online had a negative impact on the quality of education for all high school students".

The opinions of teachers are also confirmed by the consolidated point of view of parents.

**Table 8**

*Distribution of answers to the question: "When the school worked remotely, did you have conflicts with your child because of study issues?", %*

Set points	Answers of parents
1. No, he/she did the right thing	39,7
2. No, I have no control over his/her studies.	13,1
3. Yes, I saw how during the lesson he/she was engaged in extraneous matters	17,8
4. Yes, I had to force him/her to study	29,4

Almost half of the parents indicated that they had conflicts with their children caused by an insufficient level of motivation to study online. In fact, there could be more of them, but we must take into account that not all parents have opportunity to control their children due to professional employment. The percentage received is only little more than what the high school students themselves said, referring to the decrease in their level of motivation during distance learning.

And finally, the last one. In the emerging discourse, many scientists, teachers and parents share the opinion that online learning is a modern model of education. Some suggest transferring school education to electronic format right now. Such projects were actively discussed during the pandemic in the context of the initiatives of the head of Sberbank, Herman Gref ([School, 2019](#)). After the end of the pandemic, the Internet was filled with advertising messages of various kinds of online schools that operate as an alternative to the regular high school. The main focus of advertising content unfolds through a description of the advantages of online education compared to studying in a regular school. This advertisement and the very functioning of the institution of alternative online learning became possible due to the presence in the Law on Education of Russia of a legal norm that gives parents the right to transfer their child to family education (clause 3, part 1, article 17). This construction is used by entrepreneurs in the educational services market to advertise their activities, without bearing any responsibility for the quality of education, because. Responsibility shifts entirely to the child's parents. In this regard, we decided to update and personalize the problem by formulating the variable in such a way that the respondents (teachers and parents) answered the question about their readiness to transfer not some abstract (foreign) children, but their own children to online learning.

**Table 9**

*Distribution of answers to the question: "Would you choose online education for your child instead of a common school?", %*

Set points	Answers	
	Parents	Teachers
1. Yes, in terms of online learning high school students develop intrinsic motivation better	5,4	8,4
2. Yes, modern high school students study better at the computer	5,6	8,6
3. No, high school students drastically reduce the intensity of education, when switching to online	41,9	41,2
4. No, online learning outcomes are worse than in the classroom system	52,3	49,6
5. I would choose it as additional education	32,5	39,8

The results obtained show that our experts do not accept online learning uncompromisingly. The percentage of teachers and parents who are ready to choose online education for their high school students instead of a general education school turned out to be negligible. The experts considered that in

the context of distance learning, schoolchildren do not develop intrinsic motivation at the required level, and the intensity of education and results of educational activities themselves do not meet the established standards. More or less significant interest in online learning is associated only with its implementation in the status of additional education. The data obtained could have been even worse for the supporters of online education, if some of the answers had not been pulled over by the option "I would choose it as additional education", because respondents were given the opportunity to make only two choices of given values.

## Conclusions

The obtained results can be structured according to three main positions: the attitude to online learning, the perception of one's own motivation in the conditions of online learning, and the expert evaluation of the online learning work of high school students by teachers and parents.

Attitude towards online learning. The survey showed that the majority of schoolchildren (66.6%) are set to repeat the experience of online learning. However, out of this number, 50.0% of respondents perceive online as a form of education that is convenient for them, and only 16.6% associate it with an opportunity to improve the quality of education. As for the ability of the online format to support the intensity of learning activities, in the process of analyzing empirical data, three approximately equivalent groups were identified: 32.2% solved more learning tasks, 30.9% of respondents managed to complete a smaller volume, and 36.9% found it difficult to answer. The presence of a large number of set values who found it difficult to choose indicates the inability of this part of high school students to realize their own intensity of educational work in online learning, which casts doubt on the educational value of their choice of distance format. This is especially true in the context of the fact that in this group (36.9% of those who found it difficult to answer), 46.6% expressed their intention to continue the online learning experience. The fact that it is not worth taking literally the desire of high school students to study online without a critical reassessment is also evidenced by the fact that about a third of the students in the group who positively assessed the experience of distance learning (26% - "online is convenient"; 15% - "online provides quality") decided less the volume of educational tasks, which indicates a focus on imitation of education.

Perception of one's own motivation in the context of online learning. A direct question to high school students about the state of their motivation made it possible to single out four groups of respondents: motivation does not decrease, because learning online is convenient (46.4%); motivation does not decrease, because study online productively (10.8%); motivation is partially reduced, because studying at home is difficult (32.7%); motivation is reduced, tk. studying at home is almost impossible (10.1%). As you can see, 57.2% (46.4% + 10.8%) of high school students did not notice a decrease in motivation when switching to online learning. However, their chosen setpoints once again showed convenience over productivity. Convenience, of course, is a significant condition for increasing motivation in the educational process, but it can hardly be called decisive. And in this case, it can even act as a factor that reduces the readiness of high school students for intensive and high-quality education. This hypothesis was tested with two questions.

The first question is about the frequency of doing extraneous activities during distance lessons. In the group of those motivated because of the convenience of online learning, only 35.8% of respondents were not distracted by extraneous matters, and in the group of those motivated because of online opportunities to provide productive learning - 31.5%. The conducted pairing showed a low degree of reliability of the answers of high school students that their motivation does not decrease in the conditions of online learning.

The second question is about the preferences of the learning format: asynchronous, synchronous and regular class. This is a criterion in order to identify the relationship between the presence of motivation in an online environment and the willingness to abandon the traditional class-lesson system. It was found that in the group motivated because of online convenience, 23.1% want to study in a regular school, and in the group motivated because of online productivity - 43.5%. This means that even the presence of motivation in online lessons is not associated with greater productivity of digital education compared to a traditional school. And, conversely, some high school students from the two groups of partially motivated and demotivated online choose this particular format of learning. According to our calculations, they make up 9% of the total sample. Their aim is obvious: to get out of the control of the teacher.

All this confirms the hypothesis that the high motivation declared by high school students for the online learning process is actually more of an intention which is difficult to implement than a reality. It can be

assumed that such significant preferences for online convenience and the desire to learn asynchronously, in fact, reflect the goal that is not manifested openly to get out of the control of the teacher in order to reduce their educational activity. Obviously, this means that in the structure of the personality of high school students there are social qualities that do not contribute to maintaining motivation at a high level in the process of online learning.

Expert evaluation of educational work of high school students in online format by teachers and parents. Teachers (74.7%) and parents (81.8%) reacted negatively to the experience of high school in online learning, explaining this by the decline in the quality of education and the inconvenience of this format. Only 7.1% of teachers are convinced that high school students solved more learning problems in online lessons. 43.6% of pedagogues have encountered an attempt to simulate the learning process by students, and 39.3% believe that online learning is a complete imitation of the educational process. 51.0% of teachers believe that the transition to online has had a negative impact on the quality of education for all high school students. However, 43.1% specify that it is more convenient for some categories of children (homebodies, disabled, shy, highly motivated) to study remotely. 47.2% of parents came into conflict with their children due to the fact that they were engaged in extraneous activities during the lesson. And finally, only 5.6% of parents and 8.8% of teachers would like to transfer their children to online education. The latest data is especially characteristic of pedagogues: 25.3% of them would like to repeat the experience of online learning at school, but only 8.8% choose it for their own children. This confirms the point of view of some parents that a number of teachers advocate online learning only for their own convenience.

Based on the analyzed data, three approximately equal groups of respondents can be distinguished. In the first group, high school students are focused on the standard school-lesson system with elements of e-learning. According to our calculations, it consists of 40% of respondents. The second group articulates the advantages of online learning, which are associated with convenience and greater resource potential compared to classical learning. It contains about 35% of the respondents. The third group presents the interests of high school students, for whom, from the point of view of solving educational problems, it is not so much the format of education that is important, but the opportunity to get out of the control of the teacher and find themselves in an educational environment that is convenient for themselves. This group is formed from 25% of the respondents. The error in calculating the number of groups can be no more than 3-5%.

The main conclusion: in the presence of a dichotomy between quality and convenience, high school students choose convenience non-reflexively. This means that the online learning format, the usefulness of which is obvious only if students have a stable cognitive activity, is unacceptable for most high school students.

## Acknowledgements

We thank Professor of the Department of General and Counseling Psychology (Don State Technical University, Rostov-on-Don), Shcherbakova Tatyana Nikolaevna for her assistance in conducting the sociological survey.

### Conflict of interests

The authors declare no conflict of interest.

### Author Contributions

Conceptualization – A. V. D. and V. V. K. ; Data curation – D. N. C. ; Formal Analysis – A. V. D. ; Investigation – A. V. D., V. V. K. and D. N. C.; Methodology – V. V. K.; Project administration – A. V. D.; Software – A. V. D.; Supervision – A. V. D.; Validation – V. V. K., D. N. C.; Visualization – V. V. K. and D. N. C.; Writing – original draft – A. V. D., V. V. and D. N. C.; Writing – review & editing – A. V. D., V. V. K. and D. N. C. All authors have read and agreed to the published version of the manuscript.

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