## The School of Today and Tomorrow through the Eyes of High School Students

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- Abstract The article examines the image of the contemporary and future school in the context of the system of values and outlook on life of Russian high school students of 9-11 grades. The empirical basis of the study is the analysis of the answers of high school students from 46 schools of St. Petersburg to the questions posed during the school foresight sessions in September — December 2021 within the project "Your Budget at Schools 2021". The study includes a detailed consideration of the image of the school through the eyes of high school students of St. Petersburg, as well as the interpretation of this image in terms of its relationship with the system of values of today's youth. The main conclusions of the study are that the importance of such elements as 'adult life skills', 'computer competence', 'efficient communication skills', 'self-development and self-improvement', 'collaboration skills', and 'readiness for extracurricular activities' has increased in the structure of the school image. On the contrary, the importance of such elements as 'general literacy', 'working with information', 'school subject results', and 'readiness to work and earn a living' goes down. Comfort, practical skills for adult life, self-development, efficient communication, health, and recreation become the keywords describing the desired image of the future school. In our opinion, the image of the "future school" in the minds of high school students reflects primarily their urgent need for having at schools modern comfortable spaces for active learning and extracurricular activities. At the same time, the growing importance of project-based learning and the involvement of young people in social design processes provide good opportunities to use these spaces for the development of socially useful activities (at least at the school and local community level), which has a high educational impact.
- Keywords the image of the school of today and tomorrow, high school students, system of values, outlook on life, youth, personal development, education, dialogue, public good.
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The way high school students imagine the school of the future depends on their vision of an ideal future in general, which in turn is determined by the value system of today's youth. In the academic and journalistic literature, two major points of view on the value orientations of youth can be found — the optimistic and the pessimistic. The optimists take a positive view of how the value system is changing over time and believe that Russian young people are increasingly striving for freedom, self-expression, autonomy, and civic engagement. The pessimists, while not denying these qualities in part of the young people, emphasise the priority of material, hedonic values and the declining role of spiritual, social, and moral ideals for many of them. Most researchers find empirical evidence for both of these trends but usually interpret them in accordance with their personal beliefs about which value attitudes prevail in young people.

The literature review in the first section of this paper places this study into the context of the debate on the value system of today's youth. The second section provides new empirical evidence. The authors' interpretation of the data, which is presented in the third section of the article, reserves the readers the freedom to draw their own conclusions and disagree with the authors.

The need to analyse students' perceptions of school is obvious: feedback from the target audience is necessary to control the quality of any activity, and without students' feedback it is impossible to know how satisfied they are with school life. Moreover, there is another highly important reason to study students' image of school: unfortunately, recent years have seen a steady downward trend in the importance of school for adolescents, which we have not yet been able to reverse or stop [Vershlovskij, Matjushkina, 2011. P. 105-106; Matjushkina, 2021. P. 61]. The image of the school is affected by events in the country and the world, such as drastic changes in ICT, the increasing quantity and decreasing quality of information on the Internet, the growing influence of the media, and the penetration of new technologies in all areas of life. Not only children but also their parents and teachers get lost in contradictory information flows. Both school and family are gradually losing their influence on adolescents' value system, giving way to the Internet, virtual communities, and youth subcultures [Lyubitskaya, Shakarova, 2018. P. 196]. Schools aim to update curricula, develop new teaching methods and approaches, enrich the educational environment, and improve management efficiency. All these measures, however, do not bring the desired result, and the importance of school in students' eyes continues to decrease. In this article, we explore why and how school is losing its importance by analysing the images of the school of today and the school of the future, as well as the projects which, according to high school students, could make school better.

1. Debate on the Value System of Today's Youth 1.1. Optimists

Over a decade ago, the journal Voprosy obrazovaniya / Educational Studies Moscow published two articles describing the social and pedagogical portrait of St. Petersburg school leavers in 1993–2009 [Vershlovskij, 2004; Vershlovskij, Matjushkina, 2011]. This empirical evidence was further supplemented with data up to the year 2020 by the book Vypusknik peterburgskoy shkoly: Ot pokoleniya Y k pokoleniyu Z (20 let issledovaniya) [Graduate of St. Petersburg School: From Generation Y to Generation Z (20 Years of Research)] published in 2021 [Matjushkina, 2021]. The conceptual framework of these works was the idea that the totality of school leavers' value orientations is a key integral criterion of school education effectiveness. Education can be considered effective if the school succeeds in preparing students for adult life. The authors analyse this readiness for adult life at three levels: functional literacy, competence, and 'spirituality' [Vershlovskij, 2004. P. 247]. The levels of functional literacy and competence show to what extent school leavers, in their own opinion, are ready to solve various life tasks and what the role of the school is in acquiring this readiness. The spirituality level describes school leavers' system of values. It is the most important indicator for our study, as spirituality is what lies at the basis of high school students' image of today's and the future school and the discussion of this quality leads us to the discussion about the interpretation of this image. Students' readiness for adult life is not a result of schooling alone but is built in the course of personal development through interaction with the world around them: family, school, friends, and society as a whole. Students' image of the ideal school of the future emerges based on their worldview, which in turn results from the many influences of society. Students' worldview also largely determines how ready they feel for adult life and how, in their opinion, the school has prepared them for it.

St. Petersburg school leavers in 2010 hold the following world-view attitudes:

- pursuit of autonomy;
- tendency to re-evaluate traditional values through the prism of self;
- · reliance primarily on one's own abilities and energy;
- · lack of self-control, emotional instability;
- inflated self-esteem;
- desire to be accepted by others for who you are;
- prioritisation of material, hedonic values;
- the declining importance of spiritual, social, and moral values;
- pragmatic, utilitarian attitude towards education [Vershlovskij, Matjushkina, 2011. P. 111].

The analysis of the empirical data obtained in 2018 shows that the system of values of St. Petersburg school leavers is dominated by such concepts as the love of close ones, happy family life, finding one's true calling and being devoted to it, and having a beloved and well-paying job. The least prevalent are such values as desire fulfilment, wealth, fortune that allows one not to worry about earning a living, fame, popularity, and glory. Based on this, M.D. Matjushkina assesses the level of school leavers' 'spiritual health' as quite high. The author argues that the ideal image of a young person ready to achieve his or her life goals under market competition without giving up on humanistic values remains relevant to this day [Matjushkina, 2021. P. 142, 162]. This conclusion allows us to classify this researcher into the group of optimists.

O.S. Ostroverkh and A.V. Tikhomirova, the authors of the article about the participatory design of school learning environment, belong to this group as well [Ostroverkh, Tikhomirova, 2021]. Between December 2019 and April 2020, they conducted discussion meetings with schoolchildren in one of the megalopolises of the Central Federal District. As a result, they identified the following problems of today's school from the adolescents' perspective: lack of focus on children's individual needs, pressure and coercion, treating students as 'objects', formalisation of school-related processes, dishonest and tedious practices, and system rigidity.

What do students expect from a good school? According to the participants in the design of learning environments, the main learning outcomes should be the following: '...I can think, I have a sense of who I am, I can learn, I can communicate, I feel ready to change the world' [Ibid. P. 273]. This list of goals is in line with the worldview found in St. Petersburg school leavers [Vershlovskij, Matjushkina, 2011. P. 101, 104]. For example, the pursuit of autonomy means (if not determines) adolescents' desire to see the school as 'free of pressure and coercion, rigidity, and formalisation'; reliance on one's own abilities and energy explains students' criticism of school for ignoring their individual needs; inflated self-esteem leads to the criticism of school for treating students as 'objects' and tedious school events. The pursuit of freedom and pro-activity found in today's students is consistent with their expectations of the ideal school of the future: it should be non-authoritarian, based on dialogue, promote self-expression and awareness, teach independent thinking, use a personalised approach and develop soft skills [Ostroverkh, Tikhomirova, 2021. P. 272].

The results of surveys conducted in individual schools, such as the school 'Intellektual',<sup>1</sup> broadly available on the internet, and high school students' private opinions on what a modern school should be like also reflect adolescents' desire for autonomy, self-expres-

<sup>&</sup>lt;sup>1</sup> Orlova L.P. (2010) Shkola budushchego glazami starsheklassnikov [School of the Future through the Eyes of High School Students]: https://urok.1sept.ru/ articles/583900

sion, self-governance in school, and to fully embrace modern technology. Director of British Higher School of Art & Design A. Butrym, as a result of the discussion with her teenage sons, made a list of the following expectations of the school.<sup>2</sup>

- 1. The school space should inspire.
- 2. The school should be comfortable.
- 3. The school should provide private space (at least lockers).
- 4. The classroom should consist of students of different ages.
- 5. The digital world should become part of the learning process.
- 6. The learning process should be as personalised as possible.
- 7. We want to engage in teamwork.
- 8. We want to master learning techniques and soft skills.
- 9. We want to use different sources.
- 10. We want to learn in a multitasking environment.
- 11. We want classes of students and study groups to have names.
- 12. We want to study subjects that develop emotional intelligence.
- 13. The division between those who are more into humanities and those who are more into natural science is obsolete.
- 14. We want to participate in developing new technologies and testing them.
- 15. We should be prepared for the jobs of the future.
- 16. We want to combine study with work.
- 17. Additional education should not be of secondary importance.
- 18. We want the school's self-governing body to wield real authority.

These characteristics of the ideal school of the future generally coincide with the guiding principles mentioned by students when designing a learning environment together with adults: the desired properties of the physical space are described in items 1, 2, 3, 11; the requirements for school atmosphere and system of values — in items 5, 6, 7, 9, 16; the curriculum preferences — in items 8, 10, 12, 13, 14, 15; the personnel matters — in items 4, 17, 18 [Ostroverkh, Tikhomirova, 2021].

Thus, high school students have a clear expectation of what characteristics the modern school should have. Their ideal school should serve the interests of students, who intensively consume the services it provides for their most effective personal and professional development. At the same time, students feel ready to be proac-

<sup>&</sup>lt;sup>2</sup> Butrym A. (2018) Kakoj dolzhna byť shkola budushchego: manifest starsheklassnikov [What the School of the Future Should Be Like: High School Students' Manifesto]: https://mel.fm/blog/universaluniversity/81735-kakoy-dolzhna-byt-shkola-budushchego-manifest-starsheklassnikov

tive partners of adults — both teachers and parents — in school design, which increases their responsibility for learning [Ibid. P. 277].

The ideas of today's students and their parents about what school should be like are certainly influenced by the widespread non-traditional approaches to learning. In particular, edutainment as an approach to education is based on providing observable evidence of why the knowledge being acquired is useful, independent learning, using games, visual content, comfortable environment, and flexible formats of interaction [Graus et al., 2021]. The mere fact of the emergence of numerous edutainment business projects, such as Kidzania, KidBurg, and interactive science museums, indicates public and market demand for learning that is not overly academic and theoretical. Children and parents look for simplicity, ease, and comfort. This is what parents pay for, leaving their children for a few hours in an edutainment centre while they go shopping. Talking about boundaries between entertainment and education with children requires the use of a variety of substantive and value-related arguments.

The image of today's schoolchild as a rational pragmatist, presented in the work of S.G. Vershlovskij and M.D. Matjushkina [2011], was later supplemented and enriched by a study on young people's system of cultural values, based on exploring the popularity of schoolchildren in class or school [Titkova, Ivaniushina, Alexandrov, 2017]. The authors identify seven groups of characteristics of high school students popular with their peers:

- 1) sociable, open, and friendly;
- 2) have the authority to decide on behalf of the class and are accountable to teachers;
- 3) a nice, kind person, who helps others;
- 4) cheerful, fun and has a sense of humour;
- 5) pleasant and interesting to talk to, can keep the conversation going;
- 6) organises others around himself/herself, is energetic, charismatic;
- 7) a good student, very intelligent.

Most of the qualities that distinguish popular students point to their high competence in communication and, very importantly, their readiness and ability to take on responsibility, for example for the situation in the classroom. In general, the authors describe behaviour of popular students as distinctly pro-social: based on the values of comradeship and public benefit. Vershlovskij and Matjushkina also note the high importance of friends' opinions for high school students and their ability to be a good friend, but, in the researchers' view, this ability is more an instrument of self-assertion in a peer group than a way to serve public interests, even if at the local, class level. Thus, V.V. Titkova, V.A. Ivaniushina, and D.A. Alexandrov add to our knowledge about the worldview of today's high school students an element very important for Russian culture — orientation towards the values of collectivism and equality, which, based on their research, still retain their relevance among modern youth.

As can be seen from the above, Russian schoolchildren make fairly consistent demands on today's school. Furthermore, 'adolescents can not only participate in project activities together with adults but also make a valuable and unique contribution to the content of design process, as they have their own idea of what a good school should be like' [Ostroverkh, Tikhomirova, 2021. P. 278]. If we were to describe the image of the school of the future articulated by students in one key word, it would be 'communication/dialogue', both with peers and with adults. The task of the latter is to structure this dialogue and steer it in the right direction, contributing to the development of students' competencies and system of values.

1.2. Pessimists Those who take a pessimistic, or critical, view of the system of values held by Russian youth, such as N.N. Zarubina, believe that the ethics of social responsibility understood as an orientation towards purposeful socially important activity is underdeveloped among young people. Their lack of responsibility is also manifested in everyday life, for instance, in young people's unwillingness to plan their life trajectory and take good care of their loved ones, their desire to live for today, the way they distinguish between the personal and the public, their pursuit of hedonistic lifestyle, and their tendency to take unjustified risks [Zarubina, 2012. P. 250]. Relying on research by the Institute of Sociology of the Russian Academy of Sciences, Zarubina argues that today's Russian youth are ready to disregard moral principles and norms in order to succeed in life. Zarubina reproaches young people for their unwillingness to participate in public life. Her opinion is supported by the findings of Vershlovskij and Matjushkina who discovered that participation in public and political life is of little significance for high school students, but contradicts the results obtained by Titkova, Ivaniushina, and Alexandrov who found that people ready to take responsibility are popular among youth. Perhaps the key to resolving this dispute is the point made by Zarubina herself that young people's proactive attitude manifests itself mainly in the pursuit of personal success and wealth and in asserting their individual rights and interests. 'Recognising the importance of initiative and proactive attitude does not encompass a desire to serve society, one's country' [Ibid. P. 255].

> Orientation towards personal success and enjoyment is one of the dominant elements in the value system of today's youth. The

predominance of this specific attitude is confirmed, among others, in the study of Vershlovskij and Matjushkina [2011, p. 104], which shows that St. Petersburg school leavers assess their readiness for extracurricular activities above their readiness in any other domain — with 86%. The main value attitude of young people — the pursuit of personal success — is determined by their attitude towards themselves as clients who should be provided with various services throughout their life journey from birth to death, the quality of which depends on their social status. When one is focused on the personal rather than the public benefit, all activities become means of achieving success. Success, in its turn, is needed to gain money, power, or both. Outside of school, in adult life, school leavers, judging by their prevailing value system, are unlikely to pose John F. Kennedy's classical question: 'Ask not what your country can do for you — ask what you can do for your country.' The ethics of serving society or the state is not what guides them in building their professional careers. Life should be enjoyable, and hence all the competencies school can provide should help to ensure personal success, which is a prerequisite for maximising one's enjoyment of life.

Researchers who are pessimistic about the worldview of today's youth discuss its origins and characteristics in the context of criticism of consumer society. There has been a steady increase in the number of hedonists in our society, and youth make up the lion's share of them. Hedonism today is the desire to secure only the best and more comfortable things for oneself. It is an urge for tasty and high-quality food, elite and expensive drinks, comfortable housing, prestigious means of transport, and serene recreation' [Maltceva, Kubysheva, 2018. P. 237]. Following J. Baudrillard's classic work The Consumer Society, many contemporary authors provide new evidence to show that happiness in such a society is unattainable and the pursuit of it is self-deceiving.<sup>3</sup> American expert E.E. Smith spent five years interviewing hundreds of people to find out what makes them happy. She presented the results of her research in her book *The Power of Meaning* [Smith, 2017], as well as during a TEDx talk in which she explained that the pursuit of happiness makes people unhappy, while the search for meaning leads to more fulfilment. People find meaning in life when they feel belonging and usefulness to someone other than themselves, and when they develop their best qualities.<sup>4</sup> Neuroeconomists at the University of Zurich, F. To-

<sup>&</sup>lt;sup>3</sup> Gorbach I. (2018) Schast'e ne v gedonizme. Pochemu uchenye sovetujut perestat' gnat'sja za udovol'stvijami [Hedonism Will not Make you Happy. Why Scientists Advise Stopping Pursuing Pleasure]: https://knife.media/happiness-vs-hedonism/

<sup>&</sup>lt;sup>4</sup> Smith E.E. There is More to Life than Being Happy: https://www.ted.com/ talks/emily\_esfahani\_smith\_there\_s\_more\_to\_life\_than\_being\_happy/transcript#t-571145

bler and E. Fehr, scanned the brains of their subjects and found that people who want to make others happy, rather than themselves, experience happiness more intensely and vividly.<sup>5</sup>

Pessimists consider the current value system of young people to be in crisis [Gorshkov, Petukhov, 2009; Institute of Sociology, 2011; Zorkaya, 2008].

2. The School of Today and Tomorrow in the Minds of St. Petersburg High School Students The empirical data for this study were collected by the authors in September 2021 in St. Petersburg during the implementation of the project 'Your Budget in Schools 2021'. As part of the project, students in grades 9–11 were asked to develop initiatives to create new and improve existing school infrastructure and/or enhance the educational process in their schools. From September to December 2021 they elaborated on and presented their initiatives to the city expert commission. Based on the results of the final review, 20 winning initiatives were selected, the implementation of which would be financed in 2022 from St. Petersburg city funds. A total of 7,783 students from 59 Petersburg schools took part in the project.<sup>6</sup>

At the start of the project, on 28 and 29 September 2021, foresight sessions for students were held in each school to introduce the objectives of the project to participants and stimulate the generation of the first project ideas. The programme of foresight sessions included lectures, presentations, and group work. It was during these sessions that we collected the empirical data presented below.

The main objective of the foresight sessions was to ensure students' strong motivation to implement participatory projects. By engaging students in the discussion about how the ideal school of the future should look like, we tried to inspire them and get them motivated for long-term collaborative work, the purpose of which extends beyond their school time.

Any foresight as a forecasting method includes developing an image of an ideal future, assessing the current state of affairs, and outlining a trajectory to get from the current state to the desired image [Kishita, 2021; Sokolov, 2007; Popper, Wagner, Larson, 1998]. The foresight methodology is a perfect way to gather information on both the current state and the image of the future. In Russia and abroad, there is extensive experience of using foresight technologies to work with schoolchildren both in education and in regional development.<sup>7</sup> In the project under consideration, foresight

<sup>&</sup>lt;sup>5</sup> Tobler P., Fehr E. (2017) Generous People Live Happier Lives // Science Daily: https://www.sciencedaily.com/releases/2017/07/170711112441.htm

<sup>&</sup>lt;sup>6</sup> More information about the project can be found in Appendix 2.

<sup>&</sup>lt;sup>7</sup> Open Laboratory 'Foresight in Education +20': http://rcro.tomsk.ru/proektyi-rtsro/sozdanie-seti-resursno-vnedrencheskih-tsentrov-innovatsiy-rvt-

sessions were conceived not as a research tool, but as a project management tool to let the experts involved (schoolchildren, teachers, and mentors) came up with initiatives. Over the following few months, by elaborating and detailing the project, participants were in fact answering the main question of the foresight session — how to get from the current state to the desired future. Thus, the teams' entire project development activity was essentially a time-expanded foresight session, which cumulatively resulted in a set of initiatives that answered the 'what to do' question. The proposed ideas were certainly not an exhaustive solution to the project's tasks, since the experts in these foresight sessions were schoolchildren. Still, in the course of their development we managed to obtain the necessary data quickly and efficiently.<sup>8</sup>

Following the selection of initiatives at the school level, 57 projects that won the school votes, were presented to the city expert committee at the end of November 2021 (Appendix 1). Table 1 shows a summary analysis of these projects in terms of their functional scope.

Table 1 shows that about 58% of the initiatives are aimed at creating multi-purpose spaces, that is, spaces for communication, leisure, creative work, and other extracurricular activities. Most projects to create a media studio and acquire modern musical, IT, and, partly, educational equipment also implied the creation of multi-purpose spaces to place the equipment there, which further proves the urgent need for such spaces in schools. The creation of multi-purpose spaces is de facto addressed in at least 70% of the finalist initiatives.

si/obrazovatel-ny-j-forsajt/; Golubev S.V., Slavgorodskaja M.Y., Smirnov V.A. (2019) Detskij forsajt. Proektnaja dejatel'nost' shkol'nikov po razvitiju gorodov [Foresight by Children. Students' Project Work on Urban Development]. Moscow: Grifon; Education Research and Foresight: https://en.unesco.org/ themes/education/research-foresight

<sup>&</sup>lt;sup>8</sup> The schools were randomly selected by the heads of St. Petersburg districts, as all schools in the city are to participate in this project over a period of 5 years. Teams of 5-6 people representing all senior forms of each school participated in the foresight sessions. It can be assumed that the collective profile of the respondents is somewhat different from that of the general population, which includes all schoolchildren in the city: the participants in the foresight sessions most likely have more pronounced leadership qualities, a stronger sense of initiative, and a more proactive attitude than most schoolchildren, since participation was voluntary. Our study has no focus on the judgements of students from elite or, conversely, lagging schools. Our sample reflects the whole range of schools in St. Petersburg. Moreover, by working in foresight sessions with the most active schoolchildren, we learned the views of people who not only express the general opinion but also shape it to a large extent. In total, 15% of high school students from the schools involved were surveyed, meaning that the sample is representative and reflects the general opinion of St. Petersburg schoolchildren on the issues relevant to this study.

Projects' functional scope	Number of projects (units)	Proportion of the total number of projects (%)
Multi-purpose spaces	33	57.9
Up-to-date educational equipment	12	21.1
Media studio	3	5.3
IT equipment, including electronic textbooks and Wi-Fi	2	3.5
Up-to-date sports equipment	2	3.5
Security systems	1	1.8
Well-equipped school yard	1	1.8
Museum in a school	1	1.8
Up-to-date musical equipment	1	1.8
Space for stress relief	1	1.8

Table 1. The Functional Scope of the 57 Finalist Initiatives of 'Your E	udget
in Schools 2021' Project	

2.1. My School The title of this section is the question posed to St Petersburg schoolchildren during the foresight sessions in September 2021. Using the *Mentimeter* tool, we asked each team of schoolchildren to come up with several tags describing their view of today's school. As a result, we received a total of 1,609 tags from 310 teams, which included at least 1,550 students from 46 schools located in 12 districts of St Petersburg. For the purpose of summarising, the tags were classified into 18 meaning groups presented in Table 2.

Table 2. Rating of Meaning Groups Describing High School Students' Image of Today's School

	My school today is	Number of responses (units)	Proportion of the total number of responses (%)
1	Outdated space	244	15.2
2	Foundation for education	173	10.8
3	Environment for development and achievement of goals	153	9.5
4	Environment for communication and friendship	142	8.8
5	Home away from home	133	8.3
6	Boredom/demotivation/fatigue	133	8.3
7	A cycle of routines and tests	119	7.4
8	Stress	102	6.3
9	Modern comfortable space	82	5.1

F.A. Kazin, N.G. Lukyanova The School of Today and Tomorrow through the Eyes of High School Students

	My school today is	Number of responses (units)	Proportion of the total number of responses (%)
10	Fun/rest/sport	66	4.1
11	Environment for social adaptation	49	3.1
12	Innovation/technology/advancement	49	3.1
13	Uselessness and low quality of education	40	2.5
14	Environment for creative work	38	2.4
15	Source of motivation and character formation	35	2.2
16	Source of practical skills	26	1.6
17	An important stage in life's journey	20	1.2
18	Bullying	4	0.2

The dominant element in the image of today's school is 'Outdated space'. As shown in studies of educational spaces, their quality is a factor determining the mood and behaviour of people [Ostroverkh, Tikhomirova, 2021. P. 271; Graus et al., 2021. P. 251]. At the same time, high scores are obtained for important traditional elements of the school image, such as 'Foundation for education', 'Environment for communication and friendship', and 'Home away from home'. Taken together, these three meaning groups are much more frequently mentioned than the thesis about the school as an outdated space, indicating that content and meaning are more important for students than form and appearance.<sup>9</sup>

The proportions of positive and negative elements in today's school image are shown in Table 3.

Positive elements		Negative elements	
Meaning group	Importance (%)	Meaning group	Importance (%)
Foundation for education	10.8	Outdated space	15.2
Environment for development and achievement of goals	9.5	Boredom/demotivation/ fatigue	8.3

Table 3. Positive versus Negative Meaning Groups in the Image of Today's
School as Perceived by High School Students

<sup>&</sup>lt;sup>9</sup> Here are a few typical quotations that served as the basis for the five most important meaning groups describing the image of today's school: 1) 'Outdated space': outdated (school), outdated look, discomfort, outdated space; 2) 'Foundation for education': education, knowledge, learning, the foundation for education; 3) 'Environment for development and achievement of goals': development, self-realisation, autonomy, opportunities; 4) 'Environment for communication and friendship': communication, friends, friendship; 5) 'Home away from home': home, protection, home away from home, warmth.

Positive elements		Negative elements	
Meaning group Importance (%)		Meaning group	Importance (%)
Environment for communica- tion and friendship	8.8	A cycle of routines and tests	7.4
Home away from home	8.3	Stress	6.3
Total:	37.4		37.2

In sum, the numbers of positive and negative aspects mentioned by students when describing school are almost equal. In this case, however, 'the glass is rather half empty'. Half of the children's judgements about school turned out to be negative, which is a lot. Students' negative evaluations precisely capture the main problems of today's school: outdated space, routine, boredom, demotivation, and stress.

2.2. The School To analyse the image of the school of the future the same insof the Future Is... Truments and sample were used as for the school of today tag clouds in *Mentimeter*, created by 310 teams of students from 46 schools located in 12 districts of St. Petersburg. By asking an open-ended question — 'The school of the future is...' — we have obtained 1,204 tags, which were then summarised into 25 meaning groups presented in Table 4.

# Table 4. Rating of Meaning Groups Describing High School Students' Image of the School of the Future

	My school of the future is	Number of responses (units)	Proportion of the total number of responses (%)
1	Modern comfortable space and equipment	329	27.3
2	Innovation / IT technology / advancement	177	14.7
3	Foundation for education	71	5.9
4	Openness/freedom	68	5.7
5	Interesting/non-boring	61	5.0
6	Psychological comfort	53	4.4
7	Fun/rest	53	4.4
8	Source of practical skills	50	4.1
9	Environment for development and achievement of goals	47	3.9
10	Attractiveness	45	3.7
11	Multi-purpose	36	3.0

	My school of the future is	Number of responses (units)	Proportion of the total number of responses (%)
12	Environment for communication and friendship	31	2.6
13	Environment for creative work	29	2.4
14	Home away from home	28	2.3
15	Safety	28	2.3
16	Professionalism / good management	23	1.9
17	Sport and health	20	1.7
18	Source of motivation and character formation	20	1.7
19	Environment for social adaptation	11	0.9
20	Career guidance	9	0.8
21	Boredom/demotivation/fatigue	6	0.5
22	No teachers	6	0.5
23	A cycle of routines and tests	3	0.3
24	Outdated space	0	0.0
25	An important stage in life's journey	0	0.0

Among the meaning groups describing the image of the school of the future, spatial and infrastructural characteristics clearly predominate. The meaning group 'Modern comfortable space and equipment', which was also used to describe the school of today, along with the group 'Innovation / IT-technology / advancement', which was used for today's school image too and mainly includes tags referring to the need to develop IT-equipment in schools, account for more than 40% of the judgements. The data obtained during the discussion on the characteristics of the school of the future confirm the need for a drastic modernisation of school spaces.<sup>10</sup>

Table 5 compares the meaning elements in the image of the school of the future with those in the image of today's school. In the image of the school of the future, the importance of all major positive elements in today's school image decreases by 2–4 times (Table 6). All of them — 'Foundation for education', 'Environment for development and achievement of goals', 'Environment for communication and friendship', and 'Home away from home' — are considerably less important in the image of the school of the future than in that of today's school.

 <sup>&</sup>lt;sup>10</sup> Here are a few typical quotations that served as the basis for the two most important meaning groups describing the image of the school of the future:
 1) 'Modern comfortable space and equipment': cosy, comfortable, convenient; 2) 'Innovation / IT technology / advancement': innovative, modernised, technology-driven (school).

Today's school		School of the future	
Outdated space	15.2	Modern comfortable space and equipment	
Foundation for education	10.8	Innovation / IT technology / advan- cement	
Environment for development and achie- vement of goals	9.5	Foundation for education	5.9
Environment for communication and friendship	8.8	Openness/freedom	5.7
Home away from home	8.3	Interesting/non-boring	5.0
Boredom/demotivation/fatigue	8.3	Psychological comfort	4.4
A cycle of routines and tests	7.4	Fun/rest	4.4
Stress	6.3	Source of practical skills	4.1
Modern comfortable space	5.1	Environment for development and achievement of goals	3.9
Fun/rest/sport	4.1	Attractiveness	
Environment for social adaptation	3.1	Multi-purpose	
Innovation/technology/advancement	3.1	Environment for communication and friendship	2.6
Uselessness and low quality of education	2.5	Environment for creative work	2.4
Environment for creative work	2.4	Home away from home	2.3
Source of motivation and character for- mation	2.2	Safety	2.3
Source of practical skills	1.6	Professionalism / good management	1.9
An important stage in life's journey	1.2	Sport and health	1.7
Bullying	0.2	Source of motivation and character formation	1.7
		Environment for social adaptation	0.9
		Career guidance	0.8
		Boredom/demotivation/fatigue	0.5
		No teachers	0.5
		A cycle of routines and tests	0.3
		Outdated space	0.0
		An important stage in life's journey	0.0

#### Table 5. Meaning Groups in the Image of the School of the Future versus Those in the Image of Today's School

What new or additional elements appeared in students' vision of the ideal school of the future compared to their vision of today's school? The second most important meaning group after the group 'Modern comfortable space and equipment' is, expectedly, 'Inno-

	The image of today's school (elements' fre- quency of mention, %)	The image of the school of the future (elements' frequency of mention, %)
Foundation for education	10.8	5.9
Environment for development and achie- vement of goals	9.5	3.9
Environment for communication and friendship	8.8	2.6
Home away from home	8.3	2.3

Table 6. Frequency of Using Positive Elements from the Image of Today's
School in the Image of the School of the Future

vation / IT-technology / advancement' (14.7%). The image of the school of the future contains completely new meaning elements: 'Openness/freedom' (5.7%), 'Interesting/non-boring' (5.0%), 'Psychological comfort' (4.4%), 'Attractiveness' (3.7%), 'Multi-purpose' (3.0%), 'Safety' (2.3%), and 'Career guidance' (0.8%). The meaning group 'Fun/rest/sport', which was part of the image of today's school, increased its cumulative importance and split into two groups: 'Fun/ rest' (4.4%) with tags about rest and relaxation zones and 'Sport/ health' (1.7%) with tags about healthy lifestyle. In total, all the meaning groups above, including 'Innovation/IT-technology/advancement', have 45.7% of importance, which suggests that today's high school students see the school of the future as a multi-purpose educational and entertainment centre. The meaning group 'Modern comfortable space and equipment' accounts for another 27.3% of importance, completing the image of the school as a comfortable, enjoyable space providing diverse learning opportunities. Activities that integrate education and entertainment are attractive both for children and their parents [Graus et al., 2021. P. 257]. As an example of such 'constructive leisure', Graus et al. consider the KidZania project, which successfully integrates motivation to learn, initial career guidance, and having fun at play. While acknowledging the advantages of this model, the authors are far from proposing to turn today's school into KidZania, whereas schoolchildren, based on their responses about the school of the future, would consider this a perfect school: 70-75% of their judgements fall into the meaning groups for comfort and edutainment.

2.3. What Skills and Knowledge Should School Leavers Possess? To classify the tags obtained from students' descriptions of the skills and knowledge that school leavers should possess, we used as meaning groups the requirements for personal, meta-subject, and subject outcomes of completing the basic educational programme, set out in the current Russian Federal State Educational Standard of Secondary General Education of 17 May 2012 (hereinafter — FSES).<sup>11</sup> To organise the survey, we used the *Padlet* virtual board, where teams of 5–6 schoolchildren entered their answers to the proposed open-ended question. As a result, we obtained 1,538 tags from the same group of students as in the above cases.

Table 7 contains a list of meaning groups, which will further be used to structure and analyse students' answers.

	Outcomes of completing the basic educational programme	Meaning group
1.	Personal outcomes (PO) of complet- ing the basic educational programme of secondary general education in ac- cordance with the FSES of 17 May 2012	<ul> <li>PO 1. Russian identity</li> <li>PO 2. Active citizenship</li> <li>PO 3. Readiness to serve the homeland</li> <li>PO 4. Established worldview</li> <li>PO 5. Self-development and self-improvement</li> <li>PO 6. Tolerant mindset</li> <li>PO 7. Collaboration skills</li> <li>PO 8. Morality</li> <li>PO 9. Readiness and ability for lifelong learning, including self-learning</li> <li>PO 10. Aesthetic attitude towards the world</li> <li>PO 11. Adoption of healthy lifestyle values</li> <li>PO 12. Careful, responsible, and informed atti- tude towards physical and mental health</li> <li>PO 13. A conscious choice of a future profession</li> <li>PO 14. Developed environmental awareness</li> <li>PO 15. Responsible attitude towards family for- mation</li> </ul>
2.	Meta-subject outcomes (MSO) of com- pleting the basic educational pro- gramme of secondary general educa- tion in accordance with the FSES of 17 May 2012	MSO 1. Goal-setting skills MSO 2. Efficient communication skills MSO 3. Project work skills MSO 4. Working with information MSO 5. ICT skills MSO 6. Decision-making skills MSO 7. Efficient usage of linguistic means MSO 8. Cognitive reflection
3.	Subject outcomes (SO) of complet- ing the basic educational programme of secondary general education in ac- cordance with the FSES of 17 May 2012	Subject outcomes
4.	Other outcomes that are not part of the FSES of 17 May 2012, but are men- tioned in students' responses	Sexual education Adult life skills Readiness for extracurricular activities Being successful Creativity

Table 7. Meaning Groups Describing the Desired Image of the School
of the Future in Terms of School Leavers' Knowledge and Competences

Adaptability

<sup>&</sup>lt;sup>11</sup> Order No 413 of the Ministry of Education and Science of the Russian Federation of 17 May 2012 'On the Approval of the Federal State Educational Standard for Secondary (Complete) General Education': https://www.garant.ru/ products/ipo/prime/doc/70088902/

All the 1,538 words and phrases obtained from the students were summarised and structured into 30 meaning groups presented in Table 7. Based on the importance of each group, we can see which learning outcomes, that is, the outcomes of completing the basic educational programme of secondary general education, are important for high school students and which are not. The content analysis of students' responses revealed six important meaning groups, which are not included in the FSES (Section 4 in Table 7). The most important among them is the meaning group 'Adult life skills', which includes practical skills and competencies that, according to students, are necessary for adult life, but are poorly covered both in the basic and additional school education, such as financial literacy, legal literacy, time management, cooking, and driving skills.

Table 8 presents the rating of the most important learning outcomes from students' perspective.

	What skills and knowledge should school leavers possess?	Number of responses (units)	Proportion of the total number of responses (%)
1	Adult life skills	368	23.9
2	MSO 2. Efficient communication skills	171	11.1
3	Subject outcomes	141	9.2
4	PO 5. Self-development and self-improvement	91	5.9
5	PO 7. Collaboration skills	91	5.9
6	MSO 1. Goal-setting skills	74	4.8
7	MSO 7. Efficient usage of linguistic means	74	4.8
8	MSO 4. Working with information	71	4.6
9	MSO 5. ICT skills	65	4.2
10	0 PO 9. Readiness and ability for lifelong learning, 59 including self-learning		3.8
11	PO 13. A conscious choice of a future profession	50	3.3
12			2.9
13	13 PO 12. Careful, responsible, and informed attitude 44 towards physical and mental health		2.9
14	Creativity 4		2.9
15	MSO 6. Decision-making skills	38	2.5
16	6 Adaptability 35		2.3
17	PO 11. Adoption of healthy lifestyle values	21	1.3
18	MSO 3. Project work skills	21	1.3
19	PO 10. Aesthetic attitude towards the world	9	0.6

Table 8. Rating of the Most Important Learning Outcomes from Students' Perspective

	What skills and knowledge should school leavers possess?	Number of responses (units)	Proportion of the total number of responses (%)
20	Sexual education	9	0.6
21	PO 15. Responsible attitude towards family formation	6	0.4
22	Being successful	6	0.4
23	PO 2. Active citizenship	3	0.2
24	PO 6. Tolerant mindset	3	0.2
25	Readiness for extracurricular activities	3	0.2
26	PO 1. Russian identity	0	0.0
27	PO 3. Readiness to serve the homeland	0	0.0
28	PO 8. Morality	0	0.0
29	PO 14. Developed environmental awareness	0	0.0
30	MSO 8. Cognitive reflection	0	0.0

The most important learning outcome from students' perspective was 'Adult life skills' (23.9%) — a meaning group not included in the FSES. The list of meta-subject learning outcomes in the FSES contains very specific applied outcomes, such as 'Efficient usage of linguistic means' or 'ICT skills', but does not include the skills that were very often mentioned as necessary by schoolchildren, such as financial literacy, legal literacy, as well as time management, cooking, and driving skills.<sup>12</sup>

High school students' hierarchy of personal learning outcomes clearly differs from that of the FSES. Schoolchildren are almost completely indifferent to such personal educational outcomes as Russian identity, active citizenship, readiness to serve the homeland, morality, and tolerant mindset. According to the FSES, these outcomes are the most important; they are the focus of the curricula in all the key subjects of the humanities and social sciences — history, literature, and social studies [Okolskaya, 2012. P. 100]. Meanwhile, when schoolchildren are asked to name learning outcomes important for them, they do not mention the knowledge and skills relevant to achieving the above-mentioned personal outcomes. Our data confirm the conclusion made by Zarubina [2012. P. 254]: 'The

<sup>&</sup>lt;sup>12</sup> Here are a few typical quotations that served as the basis for the three most important meaning groups describing skills and knowledge school leavers should possess: 1) 'Adult life skills': financial literacy, legal literacy, time management, cooking skills, driving skills; 2) 'MSO 2. Efficient communication skills': communication skills, working with other people, There are many different people in the world and it is important to be able to relate to each of them, emotion regulation; 3) 'Subject outcomes': sufficient knowledge and skills in general school subjects, proficiency in English, knowledge of chemistry and biology.

citizens of contemporary Russia, including young people, do not feel involved in what is happening and do not identify with their country, its culture, and history.'

The meaning groups 'MSO 2. Efficient communication skills' (11.1%) and 'PO 7. Collaboration skills' (5.9%) together ranked second in importance after 'Adult life skills', meaning that strong communication skills are extremely important for high school students. Our findings are consistent both with the results of earlier studies [Vershlovskij, Matjushkina, 2011; Ostroverkh, Tikhomirova, 2021] and with the private judgements of high school students expressed on the Internet.<sup>13</sup>

The subject educational outcomes come third in the rating of meaning groups (9.2%). In students' responses to the open-ended question 'My school today is...', the meaning group 'School is the foundation for education' gained 10.8% of importance (see Table 2). The results of 9.2% and 10.8% can be considered relatively high, as in both tables these meaning groups are in the top 3 of the rating. This means that subject knowledge as an outcome of schooling remains students' priority.

2.4. What Activities Should We Have at School?

To structure and analyse the responses of St. Petersburg schoolchildren to the question 'What activities should we have at school?', we used the analysis tools described earlier: the 1,410 tags obtained were arranged into 30 meaning groups shown in Table 7.

Table 9 presents learning outcomes important from high school students' perspective that should be the focus of school activities.

	What learning outcomes should be the focus of school activities?	Number of responses (units)	Proportion of the total number of responses (%)
1	PO 11. Adoption of healthy lifestyle values	252	17.9
2	PO 9. Readiness and ability for lifelong learning, including self-learning	239	16.9
3	PO 10. Aesthetic attitude towards the world	190	13.5
4	Readiness for extracurricular activities (leisure)	162	11.5
5	Adult life skills	97	6.9

#### Table 9. Rating of Learning Outcomes Most Important from Students' Perspective that Should Be the Focus of School Activities

<sup>&</sup>lt;sup>13</sup> Butrym A. (2018) Kakoj dolzhna byť shkola budushchego: manifest starsheklassnikov [What the School of the Future Should Be Like: High School Students' Manifesto]: https://mel.fm/blog/universaluniversity/81735-kakoy-dolzhna-byt-shkola-budushchego-manifest-starsheklassnikov

	What learning outcomes should be the focus of school activities?	Number of responses (units)	Proportion of the total number of responses (%)
6	Subject outcomes	81	5.7
7	PO 13. A conscious choice of a future profession	69	4.9
8	MSO 5. ICT skills	68	4.8
9	MSO 3. Project work skills	66	4.7
10	PO 12. Careful, responsible, and informed attitude towards physical and mental health	50	3.5
11	MSO 7. Efficient usage of linguistic means	28	2.0
12	MSO 2. Efficient communication skills	27	1.9
13	Sexual education	20	1.4
14	PO 4. Established worldview	15	1.1
15	PO 5. Self-development and self-improvement	14	1.0
16	PO 7. Collaboration skills	14	1.0
17	MSO 6. Decision-making skills	5	0.4
18	PO 1. Russian identity	4	0.3
19	MSO 4. Working with information	4	0.3
20	PO 15. Responsible attitude towards family formation	3	0.2
21	PO 3. Readiness to serve the homeland	2	0.1
22	PO 6. Tolerant mindset	1	0.1
23	PO 2. Active citizenship	0	0.0
24	PO 8. Morality	0	0.0
25	PO 14. Environmental awareness	0	0.0
26	MSO 1. Goal-setting skills	0	0.0
27	MSO 8. Cognitive reflection	0	0.0
28	Being successful	0	0.0
29	Creativity	0	0.0
30	Adaptability	0	0.0

The most important activities from students' perspective are those aimed at adopting healthy lifestyle values (17.9% of judgements). In practice, these are physical education and sports. Activities related to acquiring 'adult life skills' are in fifth place (6.9%), while these skills top the list of learning outcomes most important for schoolchildren (23.9%) (see Table 8). The second and third places are occupied by activities related to self-education (16.9%) and aesthetic development (dance, theatre, singing, and drawing, with 13.5%).<sup>14</sup>

<sup>&</sup>lt;sup>14</sup> Here are a few typical quotations that served as the basis for the four most important meaning groups describing activities that should be provided at

Comparison of the first lines in the rating of the most important learning outcomes for schoolchildren (see Table 8) with their priority school activities reveals a discrepancy between what knowledge and skills they eventually want to possess and what they would like to do at school. The controversy between the declared commitment to a healthy lifestyle among young people and their unwillingness to follow it in practice has already been described in the scientific literature [Vershlovskij, Matjushkina, 2011. P. 110].

The preference for sports and after-school clubs providing additional education, especially aesthetic education, can be explained by the fact that adolescents attach a high value to self-realisation and communication, on the one hand, and comfort and edutainment, on the other. The above activities maximise communication, which is why adolescents are interested in expanding the opportunities for such activities at school. Apparently, they do not see a contradiction between choosing 'adult life skills' and subject knowledge as desirable learning outcomes and opting for sports and additional aesthetic education as preferred school activities.

Activities aimed at developing practical skills and career guidance are quite important for schoolchildren. They include 'Adult life skills' (6.9%), 'PO 13. A conscious choice of a future profession' (4.9%), and 'MSO 3. Project work skills' (4.7%). Their cumulative importance is close to that of students' most popular choice — 'Adoption of healthy lifestyle values'. The above-mentioned activities aimed at educational outcomes Nos. 5, 7, and 9 help to acquire practical competencies for living in modern society, get familiar with different professions, and learn how to do project work. The top ranking of these activities indicates students' good understanding of the importance of the respective fields of work in preparing them for adult life.

The activities aimed at achieving subject educational outcomes, take only the sixth place in terms of their importance for schoolchildren (5.7%). The element of the image of the future school 'Foundation for education', similar in meaning to 'Subject outcomes', has almost the same level of importance — 5.9% (see Table 5). Given that it has traditionally been an important aspect that falls under the responsibility of the school, its identified level of importance can be considered rather low.

school: 1) 'PO 11. Adoption of healthy lifestyle values': new sports, sports hall and space for yoga practice, weight room, sport; 2) 'PO 9. Readiness and ability for lifelong learning, including self-learning': students' specific interests (music, chemistry, biology, IT), literary club, hands-on electives; 3) 'PO 10. Aesthetic attitude towards the world': drawing, music club, drama; 4) 'Readiness for extracurricular activities (leisure)': game room, billiards, lounge, karaoke, music lounge.

### 2.5. What Should the Space of Modern Schools Be Like?

To analyse student responses to this question, we also used the *Pa-dlet* virtual board. A total of 1,333 tags were received in response to the question 'What should the space of modern schools be like?'. Table 10 presents 25 meaning groups summarising high school students' opinions.

The dominant element in the description of the desired school space is 'comfort'. Not only 28.8% of tags in meaning group 1, but also tags in meaning groups 5, 6, 7, 9, 11, 12, 13, 18, 19, and 21

	What should the space of modern schools be like?	Number of responses (units)	Proportion of the total number of responses (%)
1	Comfortable in general	384	28.8
2	Up-to-date IT equipment (including electronic textbooks and Wi-Fi)	169	12.7
3	Multi-purpose spaces	154	11.6
4	Up-to-date educational equipment	100	7.5
5	Modernly renovated	91	6.8
6	Rest zones	91	6.8
7	Modern furniture	54	4.1
8	Safety	51	3.9
9	Modern canteen	33	2.5
10	Game rooms	33	2.5
11	Well-equipped school yard	30	2.3
12	Personal lockers and/or convenient cloakroom	30	2.2
13	Good lighting	27	1.9
14	Up-to-date sports equipment	24	1.7
15	Open and accessible libraries	21	1.5
16	Spaces for stress relief	15	1.0
17	Up-to-date musical equipment	12	0.8
18	Shower stalls and comfortable changing rooms	12	0.8
19	Well-equipped toilets	0	0
20	Co-working spaces	0	0
21	Well-equipped student lounges	0	0
22	Well-equipped entrance halls (including parent zones)	0	0
23	Sports hall access on recess	0	0
24	Modern assembly hall	0	0
25	School zoo	0	0

Table 10. Rating of Meaning Groups Summarising High School Students' Opinions about the Space of the School of the Future

are directly related to comfort. Meaning group 1 contains general concepts, such as 'comfortable', 'cosy', and 'convenient' (space), while other meaning groups include more specific words and phrases describing individual components of a comfortable school environment, such as 'poufs', 'window seats', 'outlets for mobile phones', and 'new windows'. In the rating of meaning groups describing the school of the future (see Table 5), the meaning group 'Modern comfortable space and equipment' takes the first place with a score of 27.3%. It is almost two times more important than the next meaning group — 'Innovation/IT-technology/advancement' (14.7%). Among the meaning groups summarising high school students' vision of the ideal space in the school of the future, the second place is also occupied by the group 'Up-to-date IT equipment' (12.7%). The importance scores of these two meaning groups in students' responses about the school of the future and about school spaces are very similar and together they represent two basic characteristics of the desired school space — comfort and use of high technology.

The third most important characteristic of the school space is the presence of multi-purpose areas (11.6%). At least 70% of the initiatives proposed in the project 'Your budget in schools 2021' (see Appendix 1) are aimed at creating multi-purpose spaces (see Table 1). Thus, the desired school space in the eyes of St Petersburg high-school students is comfortable, high-tech, multi-purpose, and modern.

### 3. From 'Chilling' to Meaningful Communication

To evaluate the role of our data in understanding the relationship between the identified features of the image of the future school and the value system of today's adolescents, here we summarise the key elements of the school of the future as seen by St. Petersburg high school students (see Table 11).

In high school students' responses to different questions, we most often come across judgements that can be summarised into meaning groups 'Modern comfortable space and equipment' and 'Comfort'. These groups account for 22.4% of all tags. If we add the meaning group 'Modernly renovated' to them, the cumulative importance of these elements in the image of the future school goes up to 25.1%. The second most frequently mentioned group of tags, which however falls far behind the most popular one, is the meaning group 'Self-development and additional education' (14.5%). The third place is occupied by the meaning group 'Adult life skills' (12.3%), the fourth place is taken by three meaning groups related to rest and together making up 11.7%: 'Readiness for extracurricular activities (leisure)', 'Multi-purpose spaces', and 'Rest zones'. The fifth place is occupied by the meaning groups 'Innovation/IT-technology/advancement' and 'Up-to-date IT equipment', together accoun-

Table 4 My school of the future is	Table 8 What skills and knowledge should school leavers possess?
<ol> <li>Modern comfortable space and equipment (27.3%)</li> <li>Innovation / IT technology / advancement (14.7%)</li> <li>Foundation for education (5.9%)</li> <li>Openness/freedom (5.7%)</li> <li>Interesting/non-boring (5.0%)</li> </ol>	<ol> <li>Adult life skills (23.9%)</li> <li>Efficient communication skills (11.1%)</li> <li>Subject outcomes (9.2%)</li> <li>Self-development and self-improvement (5.9%)</li> <li>Collaboration skills (5.9%)</li> </ol>
Table 9 What learning outcomes should be the focus of school activities?	Table 10 What should the space of modern schools be like?
<ol> <li>Adoption of healthy lifestyle values (17.9%)</li> <li>Readiness and ability for lifelong learning, including self-learning (16.9%)</li> <li>Aesthetic attitude towards the world (13.5%)</li> <li>Readiness for extracurricular activities (lei- sure) (11.5%)</li> <li>Adult life skills (6.9%)</li> </ol>	<ol> <li>Comfortable in general (28.8%)</li> <li>Up-to-date IT equipment (including electro- nic textbooks and Wi-Fi) (12.7%)</li> <li>Multi-purpose spaces (11.6%)</li> <li>Up-to-date educational equipment (7.5%)</li> <li>Modernly renovated (6.8%)</li> <li>Rest zones (6.8%)</li> </ol>

# Table 11. Dominant Meaning Groups in the Image of the School of the Future<sup>\*</sup>

 $^{\ast}$  The percentage values indicate the importance of the meaning groups shown in Tables 4, 8, 9, and 10.

ting for 10.9%. They are followed by the meaning group 'Adoption of healthy lifestyle values' (7.1%). The meaning groups that summarise tags about learning activity as such — 'Foundation for education' and 'Up-to-date educational equipment' — only score seventh, with 5.2%. The meaning groups 'Openness/freedom' and 'Interesting/non-boring' close the list with a cumulative aggregate importance of 4.2%.

Analysing the obtained hierarchy of meaning groups describing the school of the future, researchers who are pessimistic about the value system of Russian youth might say that the resulting image of the desired school reflects the outlook on life that is based on the values of a consumer society dominant among young people. The prioritisation of comfort by high school students, their judgements about the need to develop IT technologies in schools, especially about the need for ubiquitous stable Wi-Fi coverage, their desire to have recreational infrastructure and multi-purpose spaces in schools — all this indicates a shift in the core of young people's value system over the past 10–12 years from rational pragmatism and orientation towards career building to ignoring achievement motivation and minimising stress. The romantic view of struggle and success is giving way to a culture of 'chilling out', to use youth slang. The absolute dominance of initiatives about multi-purpose spaces in the 'Your Budget in Schools 2021' project and their frequent mention in the descriptions of the space of the ideal school show that the appeal of personal success as a result of hard study or work aimed at conquering various career heights is gradually paling beside the value of comfort, including psychological comfort, which can be obtained through communication, rest, and care for one's health.

From the perspective of the critics of consumer society, the key challenge is the problem of meaning and purpose. 'The desire to serve the common good must without fail be a requisite of the soul, a necessity for personal happiness,' — A.P. Chekhov wrote.<sup>15</sup> The worldview of today's youth shows no such desire. Consequently, the image of the school of the future is filled not with elements that enhance personal development, but with outward trappings of comfort (poufs, sofas, window seats, etc.). According to students, the school needs to approach the standard of comfortable pastime dictated by the value system of the consumer society, which students are well familiar with — for example, from their visits to shopping and entertainment centres like KidBurg or MazaPark with their parents and friends. Adolescents do not just ask for comfort and cosiness, but for specialised recreational infrastructure of a new kind. Students explicitly say that they need dedicated relaxation zones. As part of the 'Your Budget in Schools 2021' project, high school students truly enjoyed developing initiatives aimed at creating rooms for rest or even for stress relief 'after a hard day's work'. Almost all of the multi-purpose areas mentioned during this study by high school students focus on providing space for relaxation. Readiness for extracurricular activities was found to be the most developed competence in school leavers as early as 2009 [Vershlovskij, Matjushkina, 2011. P. 101, 104] and still remains so [Matjushkina, 2021. P. 106].

The researchers who are optimistic about the value system of today's youth would note that such meaning groups as 'Self-development and additional education', 'Adult life skills', and 'Subject-based education' hold quite high positions in the hierarchy of the characteristics describing studentsà ideal school of the future. These meaning groups occupy the second to fourth places (see Table 11) and aggregate 38.1% of tags, which is more than in the meaning groups 'comfort' and 'leisure' taken together. Such choice of priorities confirms students' striving for freedom, self-expression, autonomy, and civic engagement.

<sup>&</sup>lt;sup>15</sup> Chekhov A.P. (1980) Zapisnye knizhki. Zapisi na otdel'nyh listah. Dnevniki [Notebooks. Notes on separate sheets. Diaries] // Chekhov A.P. Polnoe sobranie sochinenij i pisem v 30 tt. [Complete works and letters in 30 vols.]. Vol. 17. Moscow: Nauka. P. 203; see also: [Smith, 2017; Chiksentmikhayi, 2020].

The high importance of computer literacy and the skills of working with information was reported by school leavers already in 2009 [Vershlovskij, Matjushkina, 2011]. In high school students' responses in 2021, their interest in these competencies can be seen in the popularity of the judgement that the school should possess upto-date IT equipment and be innovative and high-tech in general. Subject-based education is in demand among today's adolescents, although the role of school in helping students to obtain it is decreasing. The surveyed high school students particularly emphasise the importance of practical skills — 'Adult life skills'. Such learning outcomes as communication skills (the meaning group 'Collaboration skills') are also considered highly important. Among the priority learning outcomes, high school students also mention 'Self-education skills': they would like the school to teach them self-development and self-improvement techniques.

Such elements of the image of the ideal school as the orientation towards communication and dialogue, the importance of public recognition, the striving for self-development and self-education, and the readiness to take on responsibility, give us good cause for optimism — although the age of the respondents should also be taken into account. Adults working with schoolchildren should support young people's yearning for communication and dialogue through creative tasks, use newly created multi-purpose spaces to develop project activities for the public benefit, and stimulate students' pro-activity and readiness to take on responsibility. This window of opportunity can and should be used to tackle important social issues together with students, which will have a high educational impact.

The image of the ideal school of the future held by St. Petersburg schoolchildren, obtained in this empirical study, can thus be interpreted twofold. While some of its elements clearly indicate a substantial influence of consumerist attitude towards life, many of the students' responses reveal their perception of the school as an institution for personality development. While in general we are inclined to be moderately optimistic about the results, we should also highlight an alarming observation: high school students' descriptions of the school of the future contain almost no indication of their concern for the public good. They do not see the school of the future as a place for acquiring the skills of serving society, civic participation, participatory design, and other types of pro-social collaborative activities, even if only at the school level. In our opinion, high school students should be closely and purposefully involved in the development of the school and school life, including those areas where their participation is most natural, such as leisure, extracurricular activities, and social design. The analysis of students' image of the school presented in this article is based on a project aimed exactly at this — involving schoolchildren in the participatory design of the school space and in filling it with activities that are important for them, including those related to the public good.

Thus, the role of student feedback is not only to measure the satisfaction of students as 'clients' with the quality of 'services' provided but also, by analysing the information obtained from them, to find the most effective ways of enhancing dialogue and co-creation in the teacher-student relationship. We believe that this dialogue is an essential part of the school's educational activities, and we have yet to learn how to use it effectively so as to guide students' personal development in the face of contradictory trends in current social and economic development.

No	School	Name of initiative
1	SEI* Peterhof Gymnasium of Emperor Alexander II	Forward into the Past
2	SEI Gymnasium No 114	Resource Library and Open Space
3	SEI Gymnasium No 171	Reincarnation of Recreation Area
4	SEI Gymnasium No 278 named after B.B. Golitsyn	Cinema and Music
5	SEI Gymnasium No 284	Antitheka (anti-library)
6	SEI Gymnasium No 622	Point of Intersection (virtual museum)
7	SEI Gymnasium No 63	Smart Space
8	SEI Lyceum No 126	Lessons without Textbooks
9	SEI Lyceum No 144	Workshop of the Future (Creative Family Club)
10	SEI Lyceum No 214	Lounge Space
11	SEI Lyceum No 395	Assembly Hall as Opportunity Space
12	SEI Lyceum No 597	Orangery of the Future
13	SEI Lyceum No 623 named after I.P. Pavlov	School Floors
14	SEI GSS** No 1	3D Opportunity Space
15	SEI GSS No 128	Sportline
16	SEI GSS No 169 named after A.V. Voskresensky	Development-friendly atmosphere
17	SEI GSS No 210	'Black Staircase' Resource and Art Space
18	SEI GSS No 217 named after N.A. Alekseev	Smart Room
19	SEI GSS No 223	Mini-Quantorium
20	SEI GSS No 232	'232TV' Media Studio
21	SEI GSS No 235 named af- ter D.D. Shostakovich	'MediaLoft' School Media Space

#### Appendix 1

Finalist Initiatives of the 'Your Budget in Schools 2021' Project

No	School	Name of initiative
22	SEI GSS No 237	Multi-Purpose Information Resource Centre (MIR)
23	SEI GSS No 238	Greenland
24	SEI GSS No 242	H2[Ok]
25	SEI GSS No 252	Unifying by Dividing (outdoor sports ground)
26	SEI GSS No 277	Creation of Educational and Leisure Cluster 'On the Wings'
27	SEI GSS No 283	'Window into the Universe' Project Laboratory
28	SEI GSS No 309	Seasonal Floor
29	SEI GSS No 319 named af- ter D.A. Solovyov	319EXPO
30	SEI GSS No 320	'Tonic' Music Centre
31	SEI GSS No 324	School E-Sports Section
32	SEI GSS No 335	Growth Point
33	SEI GSS No 351	Home Balcony
34	SEI GSS No 362	'Your trajectory' 11A SEI school No 362 of Moskovsky Dis- trict of St. Petersburg
35	SEI GSS No 411 'Harmony'	Event Space. Harmony Point
36	SEI GSS No 418	Tour Desk
37	SEI GSS No 422	'ChillCo' Leisure Space
38	SEI GSS No 423	Into Science by Experiment
39	SEI GSS No 425 named af- ter P.L. Kapitsa	'CyberWorld' Computer Club
40	SEI GSS No 427	'Game-time' Social Club
41	SEI GSS No 429 named af- ter M.Yu. Malofeev	Big Change Theory***
42	SEI GSS No. 43	Complex Things Made Naturally Simple
43	SEI GSS No 435	Creating Space for the Work of the 'Puzzle' Student Coun- cil Centre
44	SEI GSS No 464	UnionSpace: Ideas that Unite Us
45	SEI GSS No 471	Virtual and Augmented Reality Technologies and Their Use within the School Curriculum
46	SEI GSS No 496	The Room of Requirement
47	SEI GSS No 518	'Creatium' Space
48	SEI GSS No 530	Map to the Future (school safety system)
49	SEI GSS No 538	Midgard
50	SEI GSS No 543	'Remake-543' Hobby Space
51	SEI GSS No 545	Military Patriotic Shooting Range
52	SEI GSS No 555 'Belogorie'	Contact Corner
53	SEI GSS No 619	E-space

No	School	Name of initiative
54	SEI GSS No 634	The Centre of the Universe
55	SEI GSS No 638	School Chill-Out Zone
56	SEI School No 604	Sensory World
57	SEI School No 616 'Dy- namics'	PlayLab: Learn by Playing!

\* SEI stands for a state-funded educational institution.

\*\* GSS stands for a general secondary school.

\*\*\* The name of the project in Russian contains a word play: the Russian equivalent of 'big change' also means 'big (school) break'.

### Appendix 2

Information Sheet of the 'Your Budget in Schools' Project Your Budget in schools' is an educational project aimed at developing active and responsible citizenship, project work competencies, creativity, and communication and presentation skills in 9th-11th graders in St. Petersburg schools.

This project, being part of participatory budgeting, invites schoolchildren to take part in the development, discussion, competitive selection, and subsequent implementation of initiatives aimed at creating new and developing existing school infrastructure and/or improving the educational process in their schools.

In 2021, 7,783 students from 59 state-funded general education institutions in 12 districts of St. Petersburg took part in this project. This resulted in the development of 273 initiatives. 60 million roubles are to be allocated in the St. Petersburg city budget for the implementation of the 20 winning projects in 2022.

The content of the projects that won in 2021 shows students' urgent need for spaces for communication, leisure, creativity, and other pastimes outside the classroom. This need has been exacerbated by the COVID-19 pandemic and the increasing overall stress experienced by students, educators, and parents. Sixteen projects (80% of the total) focus in one way or another on the creation of 'multi-purpose spaces' in student lounges, entrance halls, assembly halls, reading rooms, and unused classrooms. All of them aim at creating modern spaces where different types of extracurricular and leisure activities can be combined.

In 2021, this project involved a number of organisational decisions aimed at incorporating students' project work into the context of urban development and stimulating schools' interaction with the local community: using foresight by children to create and further develop project ideas; engaging volunteer mentors from the business community or public sector; conducting joint training sessions and master classes for external mentors and educators to develop their competencies in organising students' project work. In 2022, the project will continue with the support of the St Petersburg Finance Committee. It will involve 90 schools from 18 districts of St. Petersburg.

More about the project: https://school.tvoybudget.spb.ru/

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