

**EEIA-2018**  
**2018 International Conference "Education Environment for  
the Information Age"**

**THE SPECIFICS OF HOMEWORK ASSIGNMENTS IN THE  
INFORMATION AND EDUCATIONAL ENVIRONMENT**

Irina V. Uskova (a)\*

\*Corresponding author

(a) Research fellow at the Center for Philological Education, Institute for Strategy of Education  
Development of the Russian Academy of Education, Makarenko str, 5/16, Moscow, Russia,  
[irina.uskova@mail.ru](mailto:irina.uskova@mail.ru)\*

*Abstract*

In the present article, the author considers the issue of homework assignments, a traditional element of the educational process that is relevant to the current stage of the education development and affects virtually all Russian schoolchildren. The author considers drawing attention to this issue to be the key goal of this article due to the fact that the objectives, form and content of homework assignments for schoolchildren have remained unchanged for decades, while the conditions of the educational process and the priority approaches to its development have been changing for many years. Based on the modern methods of scientific research and the experimental work conducted, as well as her own experience of teaching, the author comes to the conclusion that in the conditions of the information and educational environment, in which modern teachers work and schoolchildren study, it is necessary to find new ways of planning homework assignments. The result of this study was the identification of the main factors affecting change in the homework of schoolchildren and the description of the perspective ways of changing it.

The article is addressed to special subject teachers, school administrators, methodologists, researchers in the field of education, as well as textbook and curriculum developers.

© 2018 Published by Future Academy [www.FutureAcademy.org.UK](http://www.FutureAcademy.org.UK)

**Keywords:** Homework assignment, learning skills, information educational environment.



## 1. Introduction

Homework assignments, a traditional element of the Russian education system, are considered to be a form of the learning process design that provides for the independent completion of tasks by students outside the classroom without the direct supervision of their teachers (Kodzhaspirova, 2003).

Over the years, studies of homework assignments have been conducted both in Russia and abroad. The analysis of the didactic, scientific and methodical literature, the results of dissertational research and the practice of teaching of certain subjects in the basic school curriculum made it possible to determine the following degree of study of the issue of homework assignments design.

The main Russian studies and scientific and theoretical developments in this field were made during the following periods:

1) The 1950s and 1960s (M.A. Danilov, B.P. Yesipov, N.N. Pospelov, M.N. Skatkin, V.A. Sukhomlinsky). It was then that the theoretical foundations of the homework assignments design were laid out, the daily routine of schoolchildren was developed with the allocation of the optimal time for completing homework assignments, the students' workplace was described and various ways of eliminating student overload were proposed.

2) The 1970s and 1980s (Y.K. Babansky, A.K. Gromtseva, V.A. Slastyonin, A.V. Usova). During these years, the issue of planning homework assignments began to be developed in private teaching methods for individual subjects (A.D. Deikina, N.B. Istomina, L.T. Yakim, M.A. Trutko). Also, attempts were made at determining the number of hours required for completing homework assignments (N.N. Pospelov, Z.G. Shabalina, V.I. Shcheglov, A.V. Usov).

## 2. Problem Statement

However, at the present stage of development of the pedagogical science in Russia, targeted pedagogical studies of homework assignments are practically not being conducted. Thus, the analysis of scientific literature has demonstrated that over the past decade no scientific or research and methodological work dedicated to this issue was published (Turbovskoy, 2016; Uskova, 2017). The analysis of dissertational research revealed just one thesis defended in the field of "General pedagogy, history of pedagogy and education", dedicated to the system of homework assignments as a factor of improving the quality of the educational process (T.V. Rogozina).

Also, within the framework of this research, a search for non-scientific literature aimed at schoolchildren, teachers and parents was conducted in order to carry out a comprehensive analysis of the issue. As part of this search, a whole range of publications was discovered that were in some way related to the homework assignments of schoolchildren. These publications can be loosely divided into two groups:

1) completed homework assignments from practically all the existing ranges of textbooks on all subjects (the so-called CHAs);

2) workbooks especially aimed at the independent practice of some skills (for instance, speech therapy homework aimed at practicing the pronunciation of the "R" sound).

Some of the available foreign research articles and popular publications on homework assignments have also been analyzed and a range of problems that their authors are currently preoccupied with has been defined. Thus, in France, Spain and Portugal, special attention is paid to teaching parents how to help their

children with homework (Caplette, 2015; Cerra, 2006; Mora, 2018; Nunez, 2017; Painter, 2003); in the US – to the issue of doing homework assignments online (Cadime, 2017; Xu, 2016); in the Netherlands – to the problem of plagiarism when doing homework (Cronan, 2018); in Germany a conclusion is drawn that those students who do their homework generally do better at school and achieve high results (Goellner, 2017). Thus, in each of the studies presented, the importance of doing homework is emphasized.

The analysis of the practice of teaching certain subjects at school<sup>1</sup> in Russia demonstrates that at present there is an urgent need for changing the practice of organizing the homework assignments process. This is confirmed not only during the questioning of and interviews with teachers of the core school subjects and the author's own teaching experience, but also by the analysis of an electronic journal, during which it became clear that over the past 50-70 years the wording of homework assignments for schoolchildren has remained virtually unchanged. For example, just like in the mid-20<sup>th</sup> century the Russian language homework assignment looks as follows: "*rule – p. 5, exercise No. 15*"; geography: "*§52*"; biology: "*draw an amoeba*"; and math: "*No. 35,36,37*". Some teachers realize the need for change but don't know how to tackle the issue.

### **3. Research Questions**

A number of questions have therefore been formulated that the author has tried to answer within the framework of this study: what factors indicate that homework assignments for modern schoolchildren have to change significantly, and what are the possible ways of implementing these changes?

### **4. Purpose of the Study**

The purpose of this study is to determine the specific characteristics of homework assignments at the present stage of development of the educational process and to determine the perspective directions of their change.

### **5. Research Methods**

The main methods used in this study – system analysis, as well as synthesis and generalization of the results of pedagogical, psychological and methodical scientific research in order to determine the extent of exploration of the issue and to identify the initial theoretical statements; reflection on the author's own teaching activity; methods of search design, as well as empirical methods, such as pedagogical observation of secondary school students during lessons and after-hour activities, generalization of pedagogical experience and the results of pedagogical experiments, questioning of teachers, students and parents, analysis of written work and electronic diaries of students – have provided data on the practice of organization of homework assignments.

---

<sup>1</sup>The study was conducted from 2013 to 2018 as part of the work of an experimental platform of the Institute for Strategy of Education Development of the Russian Academy of Education at the Vidnoe secondary school; during further education courses for teachers of the Russian language and literature at the Institute for Strategy of Education Development of the Russian Academy of Education.

## 6. Findings

In the process of research, two main factors have been identified that may significantly affect the changes in the homework assignment practice: the information and educational environment and the daily routine of a modern schoolchild.

1. The beginning of the 21<sup>st</sup> century in Russia and the world is connected with the active development and introduction of information and communication technologies (ICTs) into all spheres of society. At the same time, there is an increasing demand for individuals who, along with mastering the basic knowledge, competences and skills during the learning process, will also master a skill that is of the utmost importance in the modern society – **the ability to learn independently**. The significance of the formation of this skill is emphasized in the Report of the International Commission on Education for the Twenty-First Century titled “Learning: the Treasure Within” (1996): “the concept of lifelong learning when one has to learn how to learn is key and helps meet the challenges posed by the rapidly changing modern world” (Learning..., 1996)

The educational system in Russia meets the requirements of the time, having laid out the requirements for secondary school graduates in the main document regulating the process of education – the Federal State Educational Standard – one of which is the formation of motivation for education and lifelong self-education (Federal State Educational Standard, 2010).

Thus, the need to teach schoolchildren the skill of independently working with information presented on paper and electronic media, including search, selection, systematization, as well as evaluation and processing, is substantially increased. The possibility of focused work with information provides teachers with knowledge of the possibilities of the information and educational environment and the ability to work systematically with it.

In didactics, the information and educational environment (IEE) is defined as “a systemically organized set of informational, technical, educational and methodological support, inextricably linked with a human being as the subject of education” (Ivanova, 2014). The important characteristics of the modern IEE for the educational process are: the priority of individual educational needs of students, interactivity, interdisciplinarity and multimedia (Ivanova, 2014). All these characteristics become especially important when it comes to homework assignments planning, since it is during the process of doing homework that students are able to realize their individual needs (for example, work at a comfortable pace and conditions, complete tasks on topics that they find particularly difficult, etc.), use interactive programs and manuals for educational purposes, build links between subjects and use technical devices when completing the assignments.

The practice of teaching demonstrates that under the conditions of the IEE the learning process has undoubtedly changed, but only within the framework of lessons: teachers use educational films, demonstrate presentations, play audio recordings and master computer training programs. (Aleksandrova, 2017; Shamchikova, 2017). However, when planning homework assignments the possibilities offered by the information and educational environment are hardly used.

Also, it should be noted that the instruments used when planning the learning process within the framework of the IEE have also undergone qualitative changes. Today, almost all teachers have access to a computer with the ability to project images on screen, listen to sound and access the Internet, while some

classrooms are equipped with electronic boards. The software that regulates the operation of these devices has changed significantly and can be divided into two groups: created directly for educational purposes (for example, electronic journals and diaries have been developed and widely introduced into school practice) and created not for educational purposes, but actively used in the educational process nonetheless (for example, e-mail, WhatsApp, Skype).

Having circulated a questionnaire among the sixth graders of the Vidnoe secondary school, we found out that all students without exception have access to the Internet and to their personal page of the electronic journal. To access it, most of them use a smartphone or a tablet, while the rest of the students use a laptop or a stationary computer. Only 0.75% of students needed help from their parents in order to access the electronic journal.

In addition, parents and students positively assessed the introduction of electronic journals into the educational process, noting the following advantages:

1) the possibility to access homework assignments, grades and teachers' comments to any lesson in any convenient place and at any time (e.g., from a smartphone);

2) the possibility to ask a teacher a question online and have it answered.

Also, teachers are able to design non-traditional forms of educational work (using links and attachments, developing test tasks, issuing individual, group and differentiated assignments, etc.). But, despite the broader opportunities provided by the IEE, the parents of students note that only two teachers out of ten daily input the up-to-date homework assignments in the electronic journal.

2. The second factor, which undoubtedly influences the fact that approaches to the organization of homework assignments should be revised, is a significant change in the daily routine of modern schoolchildren. Parents, teachers and schoolchildren alike note that in recent years, because of the development of extracurricular activities, the system of supplementary education and the increased workload of parents, it becomes impossible to comply with a schoolchild's daily routine that was theoretically grounded and formulated in the 1950s and 1960s in the psychological and pedagogical studies that regulate the daily timeframe for completing homework assignments by a child (M.V. Antropova, V.I.Beletskaya, V.N. Kardashenko, L.V. Mikhailova, S.E. Sovetov, A.G. Khripkova et al.). At present, the time required for completing homework assignments depends on the school schedule and the schedule of extra-curricular activities. It is not uncommon for a modern schoolchild to do their homework in parts, at different times of day depending on the day of the week, outside of the equipped workplace (for example, students note that part of the oral assignments are completed on their way to various extra curriculum classes or while waiting for the start of these classes).

Undoubtedly, these factors have to be taken into account when planning schoolchildren's homework in the context of IEE. Therefore, the following specifics of homework assignments have appeared:

1) Change of the priority goal of doing homework assignments with the emphasis on the consolidation of knowledge, skills, and competences in the purposeful formation of the ability to learn in the process of independent learning activities. At the same time, it is necessary to emphasize the importance of the formation of subject knowledge, skills and competences in the practice of designing homework assignments.

2) According to Sanitary Rules and Regulations of the conditions of organization of the learning process at schools (Sanitary Rules and Regulations 2.4.2.2821-10 amended in 2011, 2013, 2015.) that establish the standards of the amount of homework assignments (for all subjects), their completion should not exceed a certain amount of hours (5<sup>th</sup> grade – no more than 2 hours, 6<sup>th</sup>-8<sup>th</sup> grades – no more than 2.5 hours, 9<sup>th</sup>-11<sup>th</sup> grades – up to 3.5 hours). Also, in the Appendix 3 of this document the Scale of difficulty of the subjects studied in primary, secondary and senior high school is offered with the purpose of drawing up the optimal curriculum. For example, in the seventh grade the most difficult subjects for schoolchildren are considered to be chemistry (13 points), geometry (12 points) and the Russian language (11 points), while the easiest ones are fine arts (1 point), music (1 point) and physical culture (2 points). In accordance with this, in our opinion, it is also advisable to design homework assignments on the basis of the table drawn up by the Sanitary Rules and Regulations, taking into account that in terms of time-consuming and difficult subjects for students, the priority should be given to the quality of the completed homework assignments instead of the number of completed assignments. It is also necessary to realize that homework doesn't have to be assigned after every class but rather within the framework of a module or after several lessons dedicated to a single theme.

3) The wording of homework assignments presented in this article as examples, selected from an active electronic journal demonstrates that they have remained virtually identical for many years. Combined with the lack of a quality stage of checking homework assignments, it drastically reduces the motivation for learning among students, while doing homework becomes boring. Therefore, the skillful work of a teacher with an information and educational environment in the practice of designing homework assignments will become one of the factors that affect the solution of this problem. Homework assignments should be modern in the way of their presentation, content and methods of evaluation.

4) The information and educational environment provides an opportunity for teachers to organize the individual and differentiated learning process for students that contributes to “1) identifying and developing the abilities, inclinations and interests of an individual, satisfying their cognitive needs, providing opportunities for successful self-knowledge and finding ways of self-realization in life; 2) the creation of favorable conditions for successful appropriation by an individual of the content of social experience necessary for projecting and further developing the human culture” (Osmolovskaya, 2002).

5) Planning homework assignments in the modern information and educational environment allows the teacher to design homework assignments that purposefully form the universal learning activities necessary in a given class at a given time, which are the basis for the formation of a metasubject skill to learn, as well as specific knowledge on given subjects. At the same time, the teacher becomes a “co-author” together with the authors of a textbook, designing the learning process creatively and originally.

## **7. Conclusion**

Under the conditions of information and educational environment, homework assignments for schoolchildren to this day remain an element of the educational process that has hardly changed over the years, but that requires updating in its goals, form and content, since it is an important means of forming a metasubject skill to study independently.

## Acknowledgements

The present work is completed as part of the State Assignment for the Institute for Strategy of Education Development of the Russian Academy of Education for 2017-2019 (No. 27.6122.2017/BCh “Updating the content of the general education and teaching methods in the modern information environment”).

## References

- Aleksandrova O.M., Vasilevykh I.P., Gosteva Yu.N., Dobrotina I.N., Uskova I.V. (2017). Upon The Problem Of The Definition Of "Training Text" In The Conditions Of Information And Educational Environment. Venezuela, Caracas. *Espacios*. Vol. 38, p. 4.
- Cadime, I., Cruz, J., Silva, C., Ribeiro, I. (2017). Homework self-regulation strategies: a gender and educational-level invariance analysis. *Psicologia-Reflexao E Critica*. Vol. 30. DOI: 10.1186/s41155-017-0062-z.
- Caplette, C. (2015). *Chouette c'est l'heure des devoirs! : 50 idées pour aider votre enfant à travailler joyeusement à la maison grâce à la pédagogie positive*. Paris. Eyrolles.162 p.
- Cerra, C., Jacoby, R. (2006). *Homework Talk!: The Art of Effective Communication. About Your Child's Homework*. CA, San Francisco. 154 p.
- Cronan, T.P., Mullins, J.K., Douglas, D.E. (2018). Further Understanding Factors that Explain Freshman Business Students' Academic Integrity Intention and Behavior: Plagiarism and Sharing Homework. *Journal Of Business Ethics*. DOI: 10.1007/s10551-015-2988-3.
- Federal State Educational Standard. (17.12.2010). №1897. 3-e izd. Moskva, Prosveshhenie. [in Rus].
- Goellner, R., Rodica I. Damian, Rose, N., Spengler, M., Trautwein, U., Brent, B.N., Robertsc, W. (2017). Is doing your homework associated with becoming more conscientious? *Journal Of Research In Personality*. Vol. 71. Pp. 1-12. DOI: 10.1016/j.jrp.2017.08.007.
- Ivanova, E.O., Osmolovskaya, I.M. (2014). *Teorija obuchenija v informacionnom obshhestve*. Moskva, Prosveshhenie [in Rus].
- Kodzhaspirova, G.M., Kodzhaspirov, A.Ju. (2003) *Pedagogicheskij slovar'*. Moskva, Academia [in Rus].
- Mora, T. Escardibul, J.O. (2018) Home Environment and Parental Involvement in Homework During Adolescence in Catalonia. *YOUTH & SOCIETY*. Pp. 183-203. DOI: 10.1177/0044118X15626050.
- Nunez, J.C., Epstein, J.L., Suarez, N. et al. (2017). *How Do Student Prior Achievement and Homework Behaviors Relate to Perceived Parental Involvement in Homework?* *Frontiers In Psychology*. DOI: 10.3389/fpsyg.2017.01217.
- Obrazovanie: sokrytoe sokrovishhe* (Learning: The Treasure Within) Osnovnye polozhenija Doklada Mezhdunarodnoj komissii po obrazovaniju dlja XXI veka. Izdatel'stvo JuNESKO, (1996). Retrieved from: <http://www.ifap.ru/library/book201.pdf> [in Rus].
- Osmolovskaya, I.M. (2002). *Didakticheskie principy differenciacii processa obuchenija v obshheobrazovatel'noj shkole* : Doctoral dissertation. In-t teorii obrazovanija i pedagogiki Ros. akad. obrazovanija. Moskva [in Rus].
- Painter Lesly. (2003) *Homework. Series editor Alan Maley*. Oxford University press. 146 p. Retrieved from: <https://www.twirpx.com/file/1420771/>
- Shamchikova V.M. (2017). Osobennosti primeneniya ikt v shkol'nom prepodavanii literatury. *Uchenye zapiski ISGZ*. [in Rus].
- Turbovskoy, Ja.S. (2016). Domashnee zadanie – neispol'zuemyj rezerv istoricheskii vostrebovannogo razvitiya sovremennogo obrazovanija (chast' I). *Novoe v psichologo-pedagogicheskikh issledovanijah*. [in Rus].
- Uskova, I.V. (2017). *Didakticheskie trebovanija k domashnej uchebnoj rabote v usloviyah informacionno-obrazovatel'noj sredy*. Soderzhanie i metody obnovljajushhegosja obrazovanija: razvitie tvorcheskogo nasledija I.Ja. Lerner: Sbornik nauchnyh trudov Mezhdunarodnoj nauchno-teoreticheskoy konferencii, posvjashhjonnoj 100-letiju so dnja rozhdenija I.Ja. Lerner (10-12 oktjabrja 2017 g.). Vol. II. Moskva, FGBNU «Institut strategii razvitiya obrazovanija RAO». [in Rus].
- Xu, J.Z., Fan, X.T., Du, J.X. (2016). A study of the validity and reliability of the online homework emotion regulation scale. USA, Starkville DOI: 10.1016/j.measurement.2017.10.050.