

Pedagogical conditions for the effective organization of distance draw learning in the digital space of modern culture

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Abstract. The modern educational situation is characterized by the expansion of opportunities for distance learning in connection with the active development of information and communication technologies. The spread of a new coronavirus infection has also become an important factor in determining the need to turn to remote forms of pedagogy and, in particular, in draw teaching. For the embodiment of distance draw learning in a university, it is important to familiarize yourself with the experience of conducting a variety of online courses on the Internet. The analysis of this experience is carried out in this article. The specificity of distance learning in the preparation of students in the architectural and artistic profile is considered. A comparison of the teaching capabilities of distance and full-time drawing training is carried out. Particular attention is paid to the use of various forms of visualization using information and communication technologies, such as educational presentations, visual aids, video materials, a portfolio of educational and creative works. The pedagogical experiment carried out within the framework of distance draw learning confirmed the effectiveness of the proposed methods of using visual clarity to enhance the educational and creative activity of students.

1 Introduction

Distance learning in its modern sense began to develop intensively relatively recently - in the 60-80s of the twentieth century. Then the first open universities were founded, which had the teaching model assumed admission without examinations and the possibility of obtaining an education without reference to geographic location. The development of remote forms of educational interaction was associated with the communication systems advancement, including, towards the end of the twentieth century, satellite communications, although elements of remote learning using postal, or radio communications were used much earlier. The convenience of remote interaction, as well as increased at the turn of the XX-XXI centuries. The educational capabilities of electronic resources, the development of the Internet have led to the intensification of distance learning processes at various levels of education, including training in higher educational institutions.

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Up until recently, draw teaching when instructing students of art and related specialties was traditionally carried out mainly in full-time format, for several reasons, such as the need to use special equipment (easels, podiums, illuminators, screens), objects of the natural fund (casts, dummies, models), the availability of opportunities to control the process of performing the image, corrections by the teacher of educational works, etc. However, in modern conditions, distance learning of drawing in higher educational institutions has begun to be carried out much more often, which is associated both with the development of information and communication technologies and with the need to limit the spread of the new coronavirus infection. In this regard, the question of how the process of draw teaching can be organized to ensure its effectiveness in the context of distance education becomes relevant.

Various aspects of the implementation of distance learning and, in particular, in training in the visual disciplines are considered in several publications [6, 7, 13, 15, 16]. Various aspects of the implementation of distance learning and in training in the visual disciplines are considered in several publications [6, 7, 13, 15, 16]. Complimented by the transfer of the disciplines of the art cycle to the distance format in universities due to the Covid-19 pandemic, the number of works in which the issues of remote learning are analyzed [1, 2, 3, 4, 9, 10, 11, 14] and in that the number of the draw and oil painting teaching [5, 8, 12]. At the same time, many particular aspects of the methods of teaching visual disciplines in the context of distance learning in these publications are not fully clarified and can be the subject of further theoretical comprehension. In addition, the emergence of new technical possibilities for distance interaction prompts changes and additions to the existing methods of draw teaching. In this publication, the experience of distance teaching of drawing is analyzed mainly through the example of training students in architectural, design, and art specialties of universities in the Don region.

The purpose of the study is to analyze the existing situation in the field of distance draw learning in the architectural and artistic profile in the context of general trends in the use of digital technologies in education, as well as to develop, on this basis, practical methods for organizing educational and creative activities of students.

2 Materials and methods

By the designated purpose, the following methods were used in the study: 1) analysis of literary sources devoted to the methods of teaching fine disciplines and the organization of distance learning using information and communication technologies, 2) a pedagogical experiment, within which information was collected and analyzed on various aspects distance education and the verification of the experimental methodology was carried out.

Before proceeding to the description of specific methods of distance draw learning in the conditions of training in art and related specialties in universities, it seems appropriate to give a general analysis of the situation associated with distance teaching of art disciplines in a broader context.

Distance learning drawing, until recently, has been more actively developed not in art or related educational institutions, but the freer conditions of the Internet space. The decade from 2010 to 2020 is characterized by the explosive growth of massive open online courses (MOOCs) on various topics, which also applies to the field of visual arts. There are now many video tutorials and online courses in drawing, painting, art history, and related topics on the Internet for users of all ages and artistic backgrounds. Such courses are posted both on the websites of individuals and organizations, and on open educational platforms, in particular, courses related to visual topics can be found on domestic and foreign platforms, such as the "National Open Education Platform", "EdX", "Coursera", "Universarium", "Intuit", etc. At the same time, the number of materials created by teachers of art universities

on these platforms is relatively small, and most online courses on drawing and painting on the Internet are the result of a private initiative.

Such online courses are mainly created for commercial purposes, while the course either involves payment, or it is designed for free familiarization with a wide audience but is created to advertise a particular art studio, workshop, school, etc. Depending on the goals of creating the course (training or introductory), it may or may not be possible to monitor the results of the implementation of educational tasks

Among the users of this kind of courses, it seems possible to conditionally distinguish three groups: 1) users who have chosen art activities as a hobby, an option for free time, 2) applicants preparing for entrance exams in drawing and painting in educational institutions of architectural, design or art orientation, or students studying in such institutions and seeking to fill the gaps in their visual training; 3) users who need to master the basics of visual literacy to get a new profession, for example, in various areas of design.

The advantages of such courses include the ability to access them from any geographic point where there is an Internet connection, favorable conditions for the rapid dissemination of new methodological approaches to learning, the freedom to choose a course that best suits individual inclinations and preferences, as well as convenience in terms of organization. The time of a user who is not tied to a specific start date of classes and, if necessary, can repeatedly review the video (for several online courses on educational platforms, this condition does not work - the start and end dates of classes on them are fixed). In addition, a significant positive feature is that the user of the course can work at an individual pace that is convenient for him.

At the same time, online courses may not be free of disadvantages to one degree or another. Their quality is often practically not controlled by anyone, and, accordingly, the level of educational services may vary. Recommendations for correcting drawings given remotely cannot fully replace the personal learning interaction between the teacher and the student. In addition, the creation of a course for commercial purposes can not only be an incentive to improve its quality but also, in some cases, contribute to a decrease in the level of learning. The desire to draw the attention of the widest possible audience to the proposed online course sometimes manifests itself in deliberately impracticable promises to teach drawing in the shortest possible time without prior preparation. Another manifestation of this desire may be in the deliberate simplification of the material presented, pictorial schematic. As a result, the user may have the feeling that complex educational and creative tasks can be solved by relatively simple means through a reproduction of the proposed schemes. At certain stages of training, such a schematic pattern may have some effect, but for a long period, it is not so productive.

It is worth making a reservation that the use of schematic images in one way or another seems to be a necessary condition for comprehending the basics of drawing and is one of the important components of modern methods of teaching art literacy. However, the nature of the schematic images can either contribute to the understanding of the principles of realistic drawing and their convincing expression by artistic means or, on the contrary, lead the drawing away in the direction of the excessive convention. The border between such options for using pictorial schemes is rather blurred, and the ability to feel the degree of expediency of using pictorial schemes depends on the general level of the teacher's artistic and pedagogical culture.

Thus, the experience of online fine arts courses in online advertising shows interesting, albeit controversial. This experience should be considered when conducting distance drawing lessons, the need for a new coronavirus infection.

Unlike most online courses in drawing, training in universities in the context of transfer to a distance format is carried out by the curriculum. Remote interaction between a teacher and students can be carried out both based on the information and educational environment of the university and through the use of several instant messengers, such as WhatsApp, Zoom,

Google Meet, Microsoft Teams, Viber, Skype, etc. The first of the two named platforms seems to be the most popular. The results of one of the studies about features of distance learning in the context of the Covid-19 pandemic confirms this fact [10, p. 206]. In the initial period of restrictions associated with the epidemic situation, social networks were used for distance interaction. However, in the preparation of students of art and related specialties in the Don region, this method of distance learning did not become widespread in the future.

Distance learning, depending on the nature of pedagogical interaction, can be divided into three types: synchronous, asynchronous, and mixed [12]. Synchronous learning assumes that the teacher interacts with the students online at a specific time frame, determined by the curriculum. Asynchronous interaction implies that students receive an assignment and then complete it in their free time, after which they provide the result of the work. Mixed interaction involves, as the name suggests, a combination of the first two options. Given the restrictions associated with the spread of coronavirus infection in the Don region, we can talk about the implementation of predominantly synchronous and mixed options for draw teaching.

Communication with students in a distance format differs from the conditions of full-time study. In particular, this is manifested in the fact that online communication takes more time to transfer information. Therefore, the necessary analysis of each educational work can be somewhat delayed, which prompts to present educational information briefly, but without prejudice to the main content of the presentation, paying attention to the most significant aspects of the image. With distance learning, the teacher has fewer opportunities to see the feedback of students to the presentation of theoretical material and the instructions received during the work. In such conditions, the teacher's ability to feel the audience and choose the right communication strategy is of particular importance.

To find out which aspects of the organization of distance learning in the first place require adjustment, a survey of students of architecture, art, and design was carried out. Also, the interviews with teachers were conducted, during which various aspects of distance learning were assessed. In addition, the analysis of educational work at the initial and final stages of the pedagogical experiment was carried out by the developed system of criteria.

3 Results

85 students of the Southern Federal University and Don State Technical University participated in the survey at the initial stage of the pedagogical experiment. Based on the survey results, Table 1 was compiled - it indicates the factors that may complicate the implementation of educational tasks in a distance format. The degree of significance of these factors was assessed by the students on a five-point scale as follows: 1 - not significant, 2 - is of small account, 3 - moderate, 4 - rather large, 5 - very important. In addition, the table shows the average difference between the answers and the average assessment of the significance of the factor. To calculate this indicator for each answer, the difference from the average assessment of the significance of the factor was determined, after which the arithmetic mean was found for them. This indicator helped to reveal the degree of severity of certain problems of distance education for certain categories of students, making it possible to get a more complete picture of the features of distance draw learning.

Based on the data presented in the table, preliminary conclusions can be drawn about ways to optimize the process of distance draw learning. At the same time, the possibilities for changing the indicators of the quality of training seem to be different for the indicated positions. For example, the indicator for the lack of art materials is mainly the responsibility of the student, not the teacher. Such a shortage may be faced by students living in small settlements during the period of distance learning, where it is not always possible to quickly

buy art materials of the required quality. In this case, the role of the teacher is reduced only to a reminder of the need to ensure the availability of materials for classes in advance.

Table 1. Students' assessment of the significance degree of factors that impede the process of implementing a distance learning.

Features of distance learning, which, according to students, make it difficult to complete educational tasks for drawing	Average assessment of the significance of the factor on a scale from 1 to 5	Average difference of answers from the average assessment of the significance of the factor
Difficulty in communication with the teacher, unclear or incomplete recommendations given by the teacher	2.7	0.6
Lack or poor quality of visual aids	2.9	0.4
Difficulty finding natural (life) objects for drawing	3.8	0.4
Lack of art materials	2.5	0.9
Problems with the quality of the Internet connection	1.9	0.7

As for the availability and quality of visualization tools, according to the results of a survey of students, the situation in this indicator does not seem critical. However, it can be concluded that the existing potential of information and communication technologies makes it possible to significantly optimize the process of distance learning.

The data in the table show that many students have difficulties with organizing life performances at home. On the other hand, the skillful use of visual means has some value in terms of solving this problem as well. A visual demonstration of examples of educational drawing can help expand students' ideas about the possibilities of organizing life for work in a distance format. Supporting theoretical explanations with visual material allows you to optimally build communication between the teacher and students, make the explanations carried out by the teacher more specific.

Along with the survey of students, conversations with teachers were carried out. Based on the results of these conversations, the following positive and negative aspects of distance draw learning in comparison with the full-time form of teaching can be distinguished:

The positive aspects are:

- the ability to transfer educational information over long distances;
- the great potential of information and communication technologies for the creation and use of educational materials;
- the possibility of using the vast resources of the Internet, where a large amount of visual material can be found;
- the economical and flexible use of time, since it does not have to be spent on getting to the place of the class.

The negative aspects are:

- the lack of special equipment and objects of the life fund at home (for example, plaster casts of antique sculptures, geometric objects, rosettes, etc.);
- an increase in the time required to explain to a certain student the nature of mistakes in his work;
- the difficulty of comparing an educational drawing with a life object from which it is performed;
- the impossibility for the teacher to make direct edits to the educational drawing with a methodological purpose;

- the impossibility for the teacher to make explanatory images in the margins of the drawing or in the form of a separate small format to clarify and supplement the theoretical provisions;
- the difficulty of controlling the academic discipline and confirming the authorship of some educational works;
- the possible differences in the tone structure of photographs of educational works in comparison with the original.

These negative aspects can be partially overcome through the optimal use of technical means. For example, the question of comparing an educational drawing with nature is to some extent solved by sending the student a photograph of a full-scale object. However, even a high-quality and well-made photograph only with some relativity conveys a real impression of life. In turn, the control of the academic discipline and confirmation of the authorship of the drawing can be carried out through the use of video communication in messengers such as Google Meet, Microsoft Teams, Skype, etc. However, in this case too, one has to face organizational difficulties. It is not uncommon for students to intentionally turn off video communications. Teachers have to face this kind of problem in other countries as well [9, p. 240].

As for the impossibility of making edits to the educational work, technical means can also be used to partially solve this issue. In a drawing sent by a student, the teacher can make schematic edits in a relatively short time (for example, in Microsoft Paint) and send back the drawing with corrections. This type of pedagogical interaction is more suitable for small student groups, when working with which there is time for such edits.

As a separate problem, we can note the lack of awareness of some teachers in terms of the use of digital technologies in the field of art education. To solve this problem, one of the publications proposes to introduce digital literacy courses in the preparation of teachers of visual disciplines [12].

Based on the analysis of the current educational situation in the field of distance drawing teaching, a number of measures were developed to improve the effectiveness of distance learning. The main focus was on expanding the use of visibility in remote interaction with students. The main types of digital visual means used in distance learning include the following:

- the photographs of educational works and reproductions of drawings made by masters of fine arts;
- the visual aids dedicated to various aspects of visual literacy: the theory of linear perspective and the principles of transferring the spatial arrangement of depicted objects, the features of light-and-shade modeling of the form in the drawing, etc.;
- the presentations on any topic, for example, a methodological sequence for performing an image;
- the video materials on the method of performing various educational tasks.

In the course of the pedagogical experiment, the effectiveness of distance learning of drawing in the control and experimental groups was compared. Teaching in the experimental groups was carried out with the active use of digital visual resources, including specially designed visual aids and presentations. Digital visual aids described a number of aspects of realistic drawing: the principles of depicting perspective in drawing a still life painting and interior, the principles of tone solution of drawing, the aspects of the image of the head and figure of a person.

In the presentations made in the Microsoft Power Point, the methodological sequence of the educational drawing on various topics was clearly presented - a drawing of a still life, an interior, an antique head, a half-length portrait with hands and a human figure. Also, video materials were used on various topics provided by the study program for drawing. Video materials on the subject of the assignments were found on the Internet and, in particular, on

the YouTube platform. Some of the video materials were created by teachers. Short-term videos have proven to be more effective for use in distance learning. Their demonstration does not require a significant investment of study time and in a few minutes, the most significant aspects of the drawing are outlined.

The pedagogical experiment was conducted over three months of distance learning in 2020. In addition, a small adjustment of the study program was carried out based on the specific conditions of distance learning and the availability of the necessary equipment for students. The experiment involved 48 students from the control groups and 55 students from the experimental groups. At the beginning of the experimental activities, the summative experiment was carried out to identify the level of work in the control and experimental groups. At the end of the distance learning period, the results were summed up in the compared groups. The comparison was carried out in accordance with the selected system of criteria. The quality of work for each criterion was assessed on a five-point scale from 1 (lowest level) to 5 (very high level). The results are shown in Figures 1 and 2.

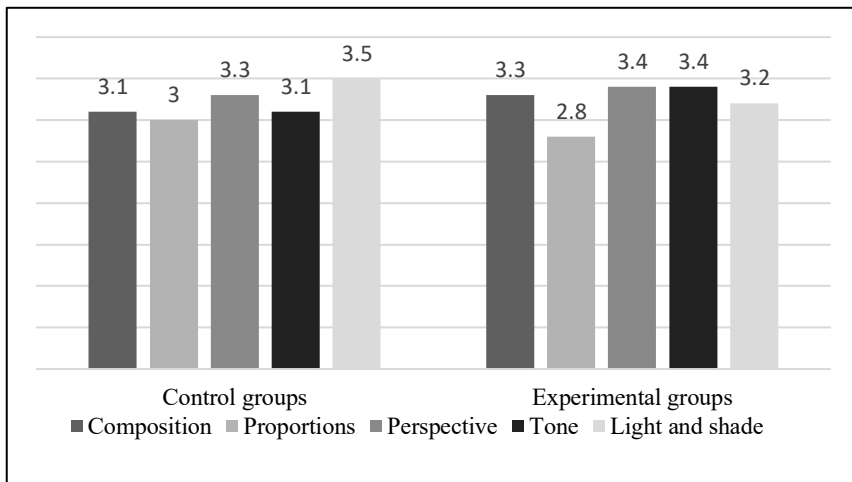


Fig. 1. The results of the summative experiment.

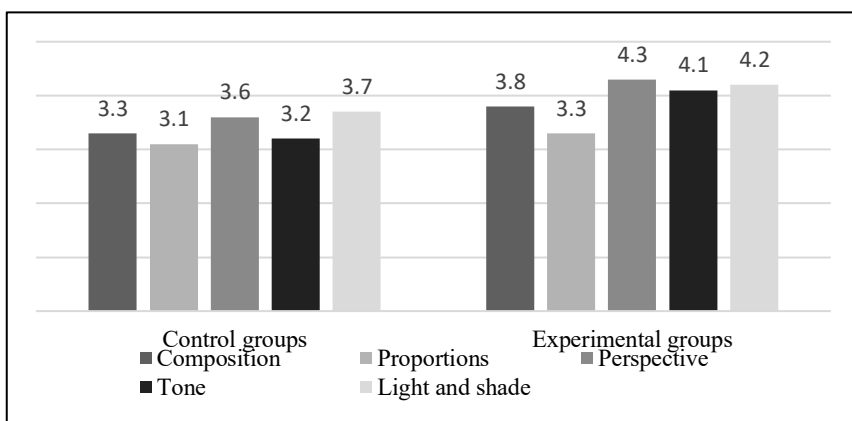


Fig. 2. The results of the formative experiment.

4 Discussion

As can be seen from the diagrams, at the initial stage of the pedagogical experiment, the level of work of students in the control and experimental groups was approximately the same. By the end of the experiment, the quality of work in both compared groups slightly increased, while the students of the experimental groups showed higher results. The increase in the level of work of the students of the experimental groups in comparison with the control groups turned out to be unequal according to different criteria. For example, according to the criterion characterizing the transfer of proportions, the students of the control and experimental groups showed similar results (3,2 and 3,3, respectively). This circumstance can be explained by the fact that the ability to transfer proportions in a drawing largely depends on the individual ability of the drawing person to feel the ratio of the compared parameters. This ability is difficult for purposeful pedagogical development.

According to criteria such as "perspective" and "light and shade", the improvement in the quality of students' work in the experimental groups was more noticeable. This can be associated with the repeated use of specially developed visual aids that demonstrate the patterns of transmission in the educational drawing of foreshortens and the features of the distribution of light and shade on the subject form, depending on the direction and intensity of illumination.

Based on the experience of distance learning in drawing, we can conclude that it does not fully replace the interaction of a teacher and a student in the classroom. However, with optimal organization, it can contribute to the development of students' visual skills and abilities. Increasing the effectiveness of distance draw teaching requires the maximum use of its positive features and the reduction, as far as possible, of negative consequences.

Some of the negative aspects of distance learning are almost impossible to overcome. For example, at home, there is usually no way to depict a human skeleton or a cast of an antique sculpture from life, as a result of which you have to limit yourself to copying from samples or change the nature of the educational task. On the other side, copying can also be useful, which is evidenced by the centuries-old experience of using the copying method in teaching drawing, as well as the results of the pedagogical experiment. If the process of copying from samples is accompanied by a convincing explanation of the key methodological tasks and the display of high-quality visual materials that reveal the patterns of performing an image, this not only contributes to an increase in the level of student work, but also allows you to stimulate educational motivation for a long period of time.

The results of the conducted pedagogical experiment confirmed that a thoughtful use of visual means is an important condition for the effectiveness of distance draw learning. In the context of full-time classroom training in visual disciplines, visual teaching methods play a very important role. However, in the distance format, when some other methodological techniques and means are not used to the same extent as in direct contact with the student, the successful use of visualization becomes even more important.

The need for intensive use of digital visual means in conditions of anti-epidemic restrictions can stimulate more active use of these tools in direct contact with students. That said, in this case, we can talk not about the opposition of distance and full-time forms of educational work, but about their mutual complementarity. In this regard, we can mention the availability of literature data that a thoughtful combination of distance and classroom forms of educational work contributes to an increase in academic performance and indicators of student satisfaction with the learning process [13].

In the foreseeable future, it is not planned to fully and long-term replacement of full-time forms of teaching drawing by distance methods. But at the same time, the experience of using information and communication resources in remote learning can be taken into account when conducting classes in the classroom. It seems possible to agree with the opinion of the authors

of one of the modern publications, according to which distance learning in areas of training in the field of design and related specialties should be no more than 10-15% of academic hours [12].

5 Conclusions

Based on what is stated in this article, we can once again outline the main conditions for the effectiveness of the process of distance draw learning:

- thoughtful organization of the communication process in the course of online interaction, involving the exchange of information in brief forms, but without prejudice to the presentation of the main content, focusing on the most essential aspects of the image;
- flexible approach to the formulation of educational and creative tasks in accordance with the conditions of learning in a distance format, based on the possibilities of using specific materials and equipment for remote interaction;
- systematic use of digital visual resources that reveal the key principles of the methodology for working on graphic images and demonstrate various options for solving educational and creative problems.

Regular use of digital visual aids, presentations and training video materials makes it possible to improve the level of work performed in a distance format, enriches the professional experience of students. In addition, visibility allows for more optimal communication in remote conditions. This is an important mean of stimulating learning motivation. The gain of experience in the remote use of visual aids can stimulate their more active and diverse use in further work after returning to full-time draw learning.

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