



Development Art and Creative Education in the World and Kazakhstan: Comparative Analysis with Design

Dünyada ve Kazakistan'da Sanatın Geliştirilmesi ve Yaratıcı Eğitim: Tasarım ile Karşılaştırmalı Analiz

Ömer ZAİMOĞLU

PhD, Associate Professor, Akdeniz University, Antalya, Türkiye
Doç. Dr., Akdeniz Üniversitesi Güzel Sanatlar Fakültesi, Antalya
Orcid: 0000-0002-9884-8397 | e-posta: omerzaimoglu@hotmail.com

Nurgul KOSHKİNBAYEVA

Doctoral student PhD specialty professional training,
Taraz Regional University Named After M.Kh.Dulaty, Taraz
Orcid: 0000-0003-3657-4295 | e-posta: koshkinbaeva_nurgul@mail.ru

Article Information/Makale Bilgisi

Cite as/Atıf: Zaimoğlu, Ö. and Koshkinbayeva, N. (2023). Development Art And Creative Education In The World And Kazakhstan: Comparative Analysis With Design. *Van Yüzüncü Yıl University the Journal of Social Sciences Institute*, 62, 205-212
Zaimoğlu, Ö. and Koshkinbayeva, N. (2023). Dünyada ve Kazakistan'da Sanatın Geliştirilmesi ve Yaratıcı Eğitim: Tasarım ile Karşılaştırmalı Analiz. *Van Yüzüncü Yıl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 62, 205-212

Article Types / Makale Türü: Research Article/Araştırma Makalesi

Received/Geliş Tarihi: 25 April / Nisan 2023

Accepted/Kabul Tarihi: 21 December/Aralık 2023

Published/Yayın Tarihi: 31 December/Aralık 2023

Pub Date Season/Yayın Sezonu: December/Aralık

Issue/Sayı: 62 **Pages/Sayfa:** 205-212

Plagiarism/İntihal: This article has been reviewed by at least two referees and scanned via a plagiarism software./ Bu makale, en az iki hakem tarafından incelendi ve intihal içermediği teyit edildi.

Published by/Yayıncı: Van Yüzüncü Yıl University of Social Sciences Institute/Van Yüzüncü Yıl Üniversitesi Sosyal Bilimler Enstitüsü

Ethical Statement/Etik Beyan: It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited/ Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur (Ömer ZAİMOĞLU and Nurgul KOSHKİNBAYEVA).

Telif Hakkı ve Lisans/Copyright & License: Yazarlar dergide yayınlanan çalışmalarının telif hakkına sahiptirler ve çalışmalarını CC BY-NC 4.0 lisansı altında yayımlanmaktadır./ Authors publishing with the journal retain the copyright to their work licensed under the CC BY-NC 4.0.

Öz

Soyut sanat ve yaratıcı eğitim öğretmenlerine giderek daha karmaşık ve etkili görevler verilir. Ancak mevcut sanat eğitimi sistemi, öğrencileri her zaman bu zorluklara hazırlamamaktadır. Sistemin genç tasarımcılara neyi ve nasıl öğrettiğini incelediğimizde, bir tasarımcının bakış açısının ve sürecinin en değerli öğelerinin nadiren öğretildiğini görüyoruz. Bunun yerine, bazı tasarımcılar, esasen tesadüfi öğrenerek, endüstri deneyimi yoluyla eğitimlerinin ötesine geçerler. Pek çok proje programı, kapalı bir bakış açısını ve zımni bilgi aktarımı için verimsiz bir mekanizmayı hâlâ sürdürmektedir.

Aynı zamanda, karmaşık sorunlara yaratıcı çözümler geliştirme becerileri giderek daha önemli hale geliyor. Kuruluşlar, imzalayanların bu tür işlere özel bir şey kattığını fark etmeye başlıyor; bu, ticari başarıyı tasarıma dayalı bir yaklaşımla ilişkilendiren çok sayıda araştırmaya dayanan rasyonel bir inanç.

Yani ne yapmalıyız? Tıp, hukuk ve işletme gibi diğer öğrenilen meslekler, kendi profesyonelleşme geçmişlerine gömülü mükemmel tavsiye ve rehberlik sağlar. Bu makalede, tasarım için bir eylem planı önermek üzere deneyimlerini ödünç alacağız. Bu kolay olmayacak: Bir araştırma ekibinin, okulların amaçlarına ve yeteneklerine uygun bir müfredat oluşturmak için kullanabilecekleri tasarım ve eğitim uygulamalarının bir listesinin nasıl derleneceği konusunda önerilerde bulunmasını gerektirecektir. Tasarım mesleğinin hem güvenilir bir uygulayıcılar topluluğu hem de 21. yüzyılda tasarımın değerini birlikte tam olarak anlayabilecek etkili bir uzman eğitimci haline gelmesi bilinçli bir çaba gerektirecektir. Bu yazıda bu yolu ana hatlarıyla anlatacağız.

Anahtar Kelimeler: Sanatsal ve yaratıcı gelişim, sanat eğitimi, profesyonel eğitim, tasarım eğitimi, tasarım düşüncesi, karmaşık sosyoteknik sistemler

Abstract

Teachers of abstract art and creative education are given increasingly complex and impactful tasks. However, the current arts education system does not always prepare students for these challenges. When we examine what and how the system teaches young designers, we see that the most valuable elements of a designer's perspective and process are rarely taught. Instead, some designers go beyond their education through industry experience, learning primarily by accident. Many project programs still maintain a closed perspective and an inefficient mechanism for transferring tacit knowledge.

At the same time, skills in developing creative solutions to complex problems are becoming increasingly important. Organizations are starting to realize that signers bring something special to this type of work; It's a rational belief based on a wealth of research linking business success to a design-based approach.

So what should we do? Other learned professions, such as medicine, law, and business, provide excellent advice and guidance embedded in their histories of professionalization. In this article, we will borrow their experience to propose an action plan for design. This won't be easy: It will require a team of researchers to make recommendations on how to compile a list of design and educational practices that schools can use to create a curriculum that suits their goals and abilities. It will require conscious effort for the design profession to become both a trusted community of practitioners and an effective expert educator who can together fully understand the value of design in the 21st century. In this article we will outline this path.

Keywords: Artistic and creative development, art education, professional training, design education, design thinking, complex sociotechnical systems

Introduction

Victor Papanek, one of the brightest representatives of his time, who contributed to the development of artistic and creative art, also criticised the chosen direction. In our opinion, his quotes are as relevant in today's world as they were 50 years ago (Asanova, 2008, p. 39). On the one hand, it is the traditional art school, one of the brightest artistic and creative directions of his time, in which the critic criticised his chosen profession through quotations. His quotation can be considered as significant today as it was 50 years ago (Asanova, 2008, p. 39). On the one hand, traditional art schools are capable of producing skilled professionals for various design and art specialities. Indeed, the world seems to tacitly recognise the value of artistic design by choosing quality and feel-good products and services. However, while many studies show the high value of art and design to manufacturing companies, only 10-20 of all Fortune 500 companies have art design executives - about 2-4% (Strelnikova, 2019). The full potential of art and creativity has yet to be discovered and understood. Perhaps the design profession and designers themselves are to blame: how many designers can become senior executives in one of the largest companies in the world? Perhaps the lack of senior managers is a testament to the insufficient level of our education.

Art and design is a complex field. It is a field that is not usually included in science. It is both a practice, an academic discipline and a technology. Each category includes many specialized disciplines whose parameters are fluid, ill-defined and constantly changing, with many different design societies devoted to them. Some societies claim that their discipline represents all of design. This misunderstanding is not unique to design and art - all professional disciplines have similar problems. However, each professional discipline also has a set of underlying principles that distinguish it from other disciplines. This is the case in design.

In this article, we will talk - about art creation and design. Today, new opportunities are opening up before the world. Art-creative educators and designers are beginning to play an increasing role not only in designing and teaching, but also in managing outside the design studio and even in deciding on activities to be carried out across the business. We are concerned that design and art education is not keeping pace with the new demands of the 21st century (Marchenko, 2002). We believe that existing art schools, design schools and universities are still needed, but suggest that the range of material taught should be continually expanded and updated. Different schools and universities may choose different paths (some will choose not to change what they have and what they do). Some will choose to focus on new components of current knowledge. We recommend that all design schools and universities learn a set of basics, but then offer in-depth courses that may be unique to teach the special talents of the school and university.

Veronika Ernestovna Strelnikova defined and drew conclusions about design thinking. She noted that design thinking is "an unique phenomenon that allows us to look at the world through the eyes of other people". In addition, she said, "it is the only approach that simultaneously encompasses different fields such as psychology, sociology, logic, intuition and empathy." Design thinking is a synthesis of empirical and theoretical cognition, a common point of contact between science and art" (Cavanaugh, 2018).

Methodology

In the course of studying this problem, theoretical and empirical methods of pedagogical research were used, which allowed a comprehensive approach to this topic. The principle of consistency and continuity is expressed in the logical sequence of tasks and the alternation of topics in design.

Discussion

The professional development of the subject of activity is a dynamic process that occurs throughout the entire professional life and is not limited to any one period. The analysis of various approaches to understanding professional development allowed us to identify common definitions:

- professional development is a long, time-consuming process of mastering a profession;
- professional development is based on self-development;
- in the process of professional development, there is a change in certain qualities of the individual as a subject of work, the result is a continuous process of self-projection of the individual;
- an important stage of professional development is professional training at a university, and the professional development of a future specialist is carried out in the process of active educational and professional activity (Cross, N., 2001).

The training of teachers of fine arts in the higher education system involves in practice artistic and creative and professional-pedagogical training of specialists. We consider the professional training of the future teacher of fine arts as a process of forming his professional competence on the basis of the unity of psychological and pedagogical and artistic and creative directions.

The content of professional artistic and creative training includes various types of experience, which are aimed at the formation of:

- cultural and historical competence, which implies the study of the theory and history of art of different eras and peoples;
- artistic and practical competence, which implies mastering the means of artistic expression of various types of arts;
- artistic taste and evaluation criteria in the context of spiritual, moral and aesthetic ideals.

The creative nature of the professional activity of a specialist brings to the fore the tasks of artistic training, which we consider as a process of forming professional competencies in the field of fine arts, aimed at developing artistic and creative thinking, imagination, and special abilities in the field of creating an artistic image with various expressive means and materials.

The main goal of the training of an artist-teacher is the formation of a creative personality of a person who has professional artistic knowledge and skills. At the same time, visual literacy is only a means by which the artist is obliged to operate. The whole set of artistic and visual skills acquired in the course of training is focused on solving artistic tasks, that is, it should be used in the creative process. Reaching the level of creative activity requires the possession of professional skills, developed imagination, artistic and imaginative thinking, which a prerequisite for professional is training in the field of art (Mikhailchenko, M.S., Kovalenko, I.N., Kodenko, I.Yu. 2021).

The most important competencies that are formed in the future teacher of fine art for his artistic and creative development, in our opinion, include the following:

- in the field of creating an artistic image-describing artistic activity; knowledge of both visual and expressive means of creating an artistic image; specific language of visual art; knowledge of skills and practical skills of working with various artistic materials and techniques;
- in the field of visual literacy-characterized by theoretical knowledge in the field of theory and history of fine art, developed artistic taste;
- in the field of control and evaluation activities-characterizing the knowledge of the criteria for evaluating artistic and creative works, the development of self-esteem, creative reflection;
- in the field of professional and personal development: the ability to self-study, self-development, self-realization.

The result of professional training is a set of objectively necessary knowledge, skills and abilities in the field of theory and history of fine arts, practical experience in pedagogical and artistic-creative activities, flexibility and critical thinking, individual psychological qualities.

Results

Development of art and creative education in the world

Artistic-creative and professional-pedagogical directions of training of an artist-teacher form his professional competence, contribute to professional development. It can be concluded that the professional training of specialists in the field of art education, aimed at professional development, is a multidimensional phenomenon. Firstly, according to the Russian experts of art narration N. N. Rostovtsev and A. E. Terentyev (Cross, 2021, p. 22), "the system of training and education of the artist-teacher should be clear and scientifically based and implemented within the framework of the school. By school the authors mean a clear system and methods of teaching in teaching and upbringing, the accuracy of the presentation of scientifically reliable knowledge and the transfer of proven experience in artistic practice. Secondly, in the course of training at the Art and Graphic Faculty, the future teacher-artist must master the art skills at a professional level and acquire the ability to conduct independent artistic and creative activities in the field of fine and decorative arts. Thirdly, to foster the student's desire and ability to work creatively with students, developing an interest in children's artistic creativity, and to form a system of skills and abilities for organizing the pedagogical process in the lessons of fine arts and extracurricular activities of students. Given that pedagogical work should be closely linked to creative work, it becomes obvious that special and pedagogical training should be brought closer together. Students should receive everything necessary to form the qualities of a future teacher:

- knowledge of theory and practice combined with a solid foundation of teaching skills;

- training in the subjects of fine arts should not be conducted in isolation from the preparation of students for their teaching activities. That is, we can conclude that professional training is carried out as a process of creative self-realization of the student in artistic, creative and pedagogical activities. In the process of improving professional skills, the foundations for the growth of pedagogical creativity and professional development are laid. The creative potential of the teacher's personality is formed thanks to the accumulated social experience, psychological, pedagogical and subject knowledge, new ideas, skills and abilities that allow you to find and apply original solutions, innovative forms and methods, thereby improving your professional functions (Dodge, 2020, p. 45).

In the artistic and creative training of a teacher of fine arts, aimed at professional development, a special place is occupied by the assessment of creative work. Mastering artistic and creative activity involves the development of students' visual means, which are the basis of artistic literacy. The assessment of creative work becomes an effective method of developing the artistic and creative thinking of the future teacher-artist, increasing his professional competence. The analysis of the work in the process of control and evaluation activities helps to think more deeply and understand the progress of the work. In the process of creative rethinking of the acquired knowledge, skills and abilities and in solving artistic and creative tasks, students develop independence and readiness for evaluation activities. If these qualities are actively manifested, then we can talk about the assimilation of educational material that helps creative activity, and creative activity – the assimilation of educational material. The teacher provides motivation for action and helps the student to activate artistic and creative activity. It is quite obvious that an active person should have a developed self-esteem in order to realize his creative abilities. The most complete development of the theoretical aspects of the problem of self-esteem was found in the works of B. G. Ananyev, I. S. Cohn, W. James, E. Erickson, K. Rogers and others (Dodge, 2020).

Self-assessment is necessary to increase the level of artistic creativity and professional competence. The system of self-control and self-assessment becomes a regulator of the relationship between the student and the learning environment. In the process of evaluating and analyzing artistic and creative work, he improves his professional artistic and creative skills and acquires qualities that will help in further pedagogical activity and professional development. Developed self-esteem is a necessary condition for the training of a competent specialist. With the systematic formation of students' value judgments, the development of self-esteem based on the attitude to solving creative, artistic and imaginative tasks, it is possible to achieve a qualitatively higher level of artistic and creative development of the future teacher of fine arts, since such stages of the creative process as setting goals, analyzing information, and critically evaluating the results of activity are optimized (Friedman, 2019, p. 39-40).

Systematic analysis and qualitative assessment of the results of students' artistic and creative activities develop the ability to consciously construct activities, consistently solve problems of creating an artistic image, adjust the work at various stages, and be independent in addition and expressive means. The activity in this case can rightly be considered creative - it has a conscious, purposeful nature.

Thus, it is legitimate to conclude that in the training aimed at the artistic and creative development of the future teacher-artist, the development of students' evaluative competencies, the need for self-improvement, creative reflection, readiness for self-realization, for further professional growth is of great importance. Professional and pedagogical training is a complex and lengthy process of professional development, which depends on the attitude to the teaching profession and artistic creativity, on the interests and inclinations in this field of work, skills, experience, and training. Its dynamics are influenced by many factors, but the fundamental one is a critical, conscious attitude to artistic and creative activity and its results, a developed artistic taste.

The artistic and creative development of future teachers-artists takes place in the process of artistic and creative activity:

- in the course of mastering the methods of professional artistic and creative activity;

- development of professionally significant qualities, such as artistic and creative abilities (abilities for creative thinking, creative imagination; developed aesthetic feelings; strong-willed properties of the artist's personality); pedagogical abilities (empathy, communicative, predictive, methodological abilities, reflection, self-analysis as a continuous process of self-projection of the individual);

- the transition of future teachers-artists to a higher level of professional competence in the conditions of the university (the inclusion of problem-based teaching methods in the educational process);

- formation of visual culture as a way to improve aesthetic taste and develop evaluation criteria);

- development of students' assessment competencies, self-assessment, reflection.

It can be argued that the professional artistic and creative development of future teachers-artists in the conditions of the university is a purposeful, specially organized process and the result of the formation of professional competence and competencies, an active qualitative transformation of the inner world, leading to a fundamentally new structure and way of life, the process of active self-realization in pedagogical work and artistic and creative activity. The professional development of the future specialist necessarily passes into the professional self-development of the specialist's personality. The process of formation of professional development throughout his life is considered as a way of self-realization of a person, the formation of his subjectivity (Friedman, 2014).

Direction of Development of Design Education

Today's design education in the world

Globalisation of culture, art creates a very complex situation in the spiritual sphere of society, determining complex vectors. In all corners of the globe there is no drift of the education system. No matter how new the knowledge we give today, it becomes obsolete at some point. The world is rapidly renewing itself. In addition, taste is being renewed. It is a continuous process. We are wrong if we say that the world develops only in a unidirectional principle.

There are at least two distinct institutions in the United States where design and creative arts disciplines are taught. These are independent schools of design not affiliated with a university (mostly in schools of art and architecture), and departments located in major research universities and graduate schools of design. In large research universities, the focus is on the academic work of faculty and students. This also means a constant focus on academic principles and research that extends the general knowledge of the speciality. There is little emphasis on practice during classes (Gordon & James, 1959).

Independent design schools place great importance on the work of teachers and students. Among them, much attention is paid to practical lessons. Students' works are highly appreciated, they participate in various exhibitions and competitions. They create posters, expositions and stands. Prizes at competitions, especially national, international competitions with high rating, are also highly appreciated, solid prizes are awarded.

More precisely, independent schools emphasise practical work and research universities emphasise science, the development of theory and the principles of scientific enquiry.

Stand-Alone Schools of Design

Artistic and creative schools of design were considered. These include: Rhode Island School of Design (RISD: Providence, Rhode Island, USA), Savannah College of Art and Design (SCAD: Savannah, Georgia, USA) and Parsons School of Design (New York, NY, USA) (Norman, 2016, p. 348). The mentioned educational institutions are considered to be authoritative autonomous schools of art and design in the USA. The analysis in our research work was limited to the USA. However, this analysis and our experience with design in other countries and regions allow our findings to be considered universal. We have visited (and in some cases taught in) design studios and firms, schools and universities in China, England, Russia, South Korea and Kazakhstan. While the curricula of the three American institutions we have examined in detail and the institutions we have visited are different, they share a similar style of work.

We looked at the curriculum of an institution in the United States. Here, the Bachelor of Fine Arts (BFA) relies on a block of "fundamental studies" (Norman, 2016, p. 144) consisting of three drawing courses in user experience design and two courses in form and color. The core curriculum consists almost entirely of seminars, studios and experiential learning courses that focus on interaction design and user experience tools. Of the 37 courses required for the degree, the program includes only one course on human-computer interaction, one course on perceptual and cognitive human factors and contextual research methods (Shirokova, S. Yu., Shirokova, A.Yu, 2016).

Features design education in Kazakhstan

Among all the directions in the period of formation of design in Kazakhstan, the leading place belongs to the Kazakhstan school of fashion modeling. And already from the first stages of the work of fashion designers (so just a few years ago, fashion designers in our country were called), a delicate line of ethno - design was outlined.

The first steps of the formation of fashion design in the republic are perfectly illustrated by the history of the "Simbat" Fashion Academy, which has managed to preserve the character and origins of the ethno-national worldview of the Kazakh costume and, in parallel, develops the form and composition of the modern costume by constantly introducing innovative fashion influences. Founded in 1947 on the basis of the sewing laboratory, the Republican House of Models, which was based

on the range of clothing, shoes and knitwear, since 1988. renamed the Center for the development of the range, fashion and culture of clothing "Symbat", and in 1992 transformed into the Academy of Fashion "Symbat" (Turganbaeva, 2018, p. 59).

In the context of the transition of higher education to a multi-level education system in Kazakhstan, new educational technologies are becoming a priority, focused on the self-development of students' personality, the formation of independence, creativity, and readiness to improve their professional level not only during a specific period of study, but also during all subsequent professional activities. In this regard, the use of active training methods in the process of professional training of future designers becomes relevant. When designing active methods of teaching graphic design at the university, it is advisable to take into account the psychological and pedagogical conditions of their use in the educational process. In professional work, the designer has to be guided not only by creative research and self-expression, but also take into account the potential budget of the project. As practice shows, the transition from educational design projects to professional ones does not always go smoothly. The peculiarities of this process can be traced in the students' production practice, as well as by observing the results of project activities when performing private orders during the study period and in the first year of employment of graduates. In this regard, you should pay attention to the following problems: the inability to focus on the target audience and work with the budget allocated by the customer for the implementation of the project (Turganbaeva, 2018, p. 61).

In the first case, the designer, solving certain tasks, is guided by his own preferences or uses certain skills acquired during the training period, based on certain taste preferences of the teachers of the graduating department. This approach in most cases does not give positive results. Paradoxically, the project may not please either the customer or the designer, but it perfectly fulfills its main task. Let's look at the example of packaging design. Let's say the customer is a man of retirement age, the designer is a middle-aged man, and the potential consumer is a girl of 18-23 years old. Or, for example, a potential consumer receives a monthly income of 2 thousand dollars, a customer, the owner of a large enterprise – a thousand times more, and the designer belongs to the middle class. Who should like the packaging design – the customer or the designer? Obviously, the design should be focused primarily on the consumer.

In the process of implementing complex projects, it is necessary to encourage attempts to work independently on the interaction of future designers with the focus group. The role of the teacher at this stage is to show the multi-aspect, ambiguity of the problems associated with the positioning of the project to the target audience. Of course, in some cases, the designer receives a brief containing full marketing research. However, as practice shows, the most complete research does not compensate for the lack of knowledge, skills and abilities associated with the positioning of the project. Understanding the principles of working with the target audience is an important step in the professional activity of a future designer (Nurtaeva, 2019).

In our opinion, one of the most important tasks of higher education in Kazakhstan is the formation of students' aptitude and readiness for self-development outside of the educational process. The use of professionally oriented active methods of teaching graphic design in the educational process, as well as a system of project tasks specially developed taking into account the specifics of real design activities, contributes to achieving this goal.

Conclusion

Art and design in education originates from the noble history of rich craft and is strengthened. With the passage of time and the development of society, the requirements and possibilities of design have expanded. The origins of design, art and creativity lie in the creation of ancient physical artifacts. But it is clearly seen that these phenomena consist of the needs, interests, tastes of the time. These needs contribute to the dynamic development of modernity. The development of new and exotic materials, new production techniques, new powerful tools, today electronic media and distribution, and even types of virtual presentations, divides the field of design into several branches. Together with the demands of the time, the structure of the work of artistic and creative specialists has also changed: from a studio located in one place under the leadership of the main designer to a distributed team, where an educated, creative team of designers can spread all over the world, sometimes working in one company, and sometimes temporarily working in another company just to do a certain job. In addition, the activities of designers are becoming essential for any industry, as it can be said that creative inquiry and problem solving have begun to embrace societal problems in various forms and contexts, from reorganizing organizations' procedures to addressing climate change.

References

- Asanova, S. Zh. (2008). Social'no-ekonomicheskie osnovy formirovaniya promyshlennogo kompleksa po proizvodstvu nacional'noj odezhdy. Almaty.
- Strelnikova, V. E. (2019). Design thinking as a modern design method/Business and Design Review. design method/ Business and Design Review, 4 (16). C. 13.
- Cavanaugh, J. (2018, March 14). "A Matrix of Competencies for Interaction Design", Design Higher (online), <https://www.designhigher.com/competencies-for-interaction-design/>.
- Cross, N. (2001). Designerly Ways of Knowing: Design Discipline Versus Design Science. *Design Issues*, 17(3), 49–55.
- Cross, N. (2019, July). Editing Design Studies—And How to Improve the Likelihood of Your Paper Being Published. *Design Studies*, 63, A1–A9.
- Dodge, K. (2020, January 21). Professional Vs Research Focus. *DegreeQuery* (online), <https://www.degreequery.com/what-is-the-benefit-of-an-eng-d-degree-vs-a-traditional-ph-d-degree/>.
- Friedman, K. (2019). "Design Education Today: Challenges, Opportunities, Failures." Chatterjee Global/150th anniversary Commemorative Lecture, College of Design, Architecture, Art and Planning, the University of Cincinnati, October 3, <https://www.academia.edu/40519668>.
- Friedman, K., Yongqi, L., Don, N., Pieter, J. S., Ena, V., and Patrick, W. (2014, December 2). "DesignX: A Future Path for Design." jnd.org (online), http://www.jnd.org/dn.mss/designx_a_future_pa.html.
- Gordon, R. A. and James, E. H. (1959). *Higher Education for Business*. New York: Columbia University Press.
- Marchenko, M. N. (2002). *Razvitie sposobnostej k dizajnerskoj deyatelnosti*. Moskva
- Mikhalchenko, M. S., Kovalenko, I. N., Kodenko, I. Yu. (2021). Creative self-realization of a future teacher-artist in the process of professional training at the university/SHS Web of Conferences 113, 00100 <https://doi.org/10.1051/shsconf/202111300100>
- Norman, D. A. (2016). When You Come to a Fork in the Road, Take It: The Future of Design. *She Ji: The Journal of Design, Economics and Innovation*, 2(4), 343–48.
- Norman, D. (2016). "The 'Science' in the Science of Design". Forword to *The Psychology of Design: Creating Consumer Appeal*, (edited by Rajeev Batra, Colleen M. Seifert, and Diann Brei), XIV–XVI. New York: Routledge.
- Nurtaeva, A. (2019). Loft Project. Kak prevratit' svoj dom v istochnik vdohnoveniya. Almaty: Bombora.
- Shirokova, S. Yu., Shirokova A. Yu. (2016). Ispol'zovanie interaktivnyh tekhnologij obucheniya v obrazovatel'nom processe/Sovremennye naukoemkie tekhnologii, No. 2 (chast' 1), 184-187.
- Turganbaeva, Sh. S. (2018). Stanovlenie i razvitie dizajna v Kazahstane. *Filologiya i iskusstvovedenie*, No. 4, 59-67.

Araştırma ve Yayın Etiği Beyanı

Araştırmacı, çalışmanın verilerinin toplanmasında, analizinde ve raporlaştırılmasında her türlü etik ilke ve kurala gerekli dikkat ve özeni göstermiştir.

Yazarların Makaleye Katkı Oranları

Yazarlar makaleye eşit oranda katkı sağlamıştır.

Çıkar Beyanı

Makalenin hazırlanmasında herhangi bir çıkar çatışması bulunmamaktadır.