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SCIENTIFIC PUBLICATIONS ANNOTATIONS under Art. 65 of the PRASPU (in a foreign language - English)

of Chief Asst. Prof. Nadezhda Nedyalkova Angelova, PhD

candidate in a competition for the academic position of „associate professor“ in the Field of Higher Education 8. Arts, Professional Direction 8.2. Fine Arts (Type and Typography)

For participation in the competition for the academic position of “Associate Professor”, 8 scientific works have been presented: 1 monograph and 7 scientific articles, of which 4 are in Bulgarian and 3 in English. They have not been used for obtaining the educational and scientific degree of Doctor or for acquiring the academic position of “Chief Assistant Professor.”

In the presented scientific publications, the issues of fonts and typography are discussed from various perspectives. In publication No.1, typographic formatting is a significant part of the overall book design and is outlined as an essential stage in the developed methodology and described criteria for quality design. Publication No.2 presents a project on creating a series of posters where the font and its formatting play a key role in integrating the competency-based approach in arts education. Publications No.3 and No.4 focus on the creation of illustrations where an important aspect is the stylistic and compositional compliance with the accompanying text and its typographic characteristics. In the context of intellectual property issues (publications No.5 and No.6), the use of fonts, their formats and licences, and student awareness of copyright issues, including font design, are discussed. The readability of the text is addressed in publication No.7 with the important criteria and indicators for its determination and achievement. Publication No.8 examines the use of artificial intelligence in interdisciplinary education through the arts, mentioning its still underdeveloped capabilities in generating images containing well-designed readable and legible text.

I. MONOGRAPH

1. **Angelova, N. 2024**, *Book Design. Methodology of the Layout*. University Publishing House “Paisii Hilendarski”, ISBN 978-619-281-007-8, p. 226.

ANNOTATION

BOOK DESIGN. METHODOLOGY OF THE LAYOUT. The monograph addresses issues in the field of artistic design of printed books and presents the author’s methodology for creating high-quality professional design of contemporary books. The book contains three parts. The first part covers the theoretical basis of the research, providing a brief overview of the development of the book’s appearance over the centuries and discussing the significance of the book and the prospects for its future. Methods of book design by notable authors, described in professional literature, are studied, with attention paid to workflow approaches and criteria for design qualities. Some iconic books that have set the aesthetic standards in the art of layout are also presented. The second part examines the current state of the problem in practice through a survey to determine the opinions and attitudes among the reading and design audience. The third part presents the developed methodology for artistic design of printed books in a commercial form, which addresses the workflow from the analytical stage to the final production of the design. The methodology is

subjected to experimental verification to establish its applicability in the professional activities of book designers and in specialized training in this field. The criteria for analyzing the obtained results are general and genre-specific, relating to the specifics in the layout of the design elements and book elements. Attention is paid to the overall concept of the book, the idea, stylistic construction, distinctive composition, expressive typography and impressive images and decorations. The analysis of the experimental results confirms the good applicability of the developed methodology. At the end of the study, the most important conclusions and findings outline the perspectives and opportunities for further development of future research on the topic.

II. RESEARCH ARTICLES AND SCIENTIFIC PUBLICATIONS IN REFEREED AND INDEXED JOURNALS (WORLD DATABASES):

2. **Baleva, A. and N. Angelova, 2023**, *Integrating the Competency-Based Approach in Arts Education through Project Activities*. In: *Competency-Based Approach and Innovations in the 21st Century*, Journal of Pedagogy, Volume 95, Issue 4s/2023, Sofia, pp. 90 – 100, <https://doi.org/10.53656/ped2023-4s.09> (Scopus)

ANNOTATION

INTEGRATING THE COMPETENCY-BASED APPROACH IN ARTS EDUCATION THROUGH PROJECT ACTIVITIES.

The article addresses the current issue of integrating the competency-based approach in arts education. This text shares and describes the experience related to mastering, expanding, and practically applying knowledge about music through project activities as a means to develop and improve the professional competencies of students in the programme of Graphic Design with Advertising. A project for creating a series of posters interpreting the musical content of works by L. V. Beethoven is presented. An assignment for the students is formulated and the results of their creative work are presented. The conceptual solution and musical interpretation, compositional construction, used artistic means, design elements, technological execution and other important aspects of the posters, including the font and its design, are analyzed.

3. **Angelova, N. 2024**, *Technological process for production of educational illustrations for children*. AIP Conference Proceedings, 11th International Scientific Conference "Techsys 2022" – Engineering, Technologies and Systems, Volume 2980, Issue 1, AIP Publishing, pp. 070009-1-070009-6, e-ISSN: 978-0-7354-4814-8, <https://doi.org/10.1063/5.0185532> (Scopus)

ANNOTATION

TECHNOLOGICAL PROCESS FOR CREATING EDUCATIONAL ILLUSTRATIONS FOR CHILDREN. In relation to the implementation of an interdisciplinary project, students from the programme of Graphic Design with Advertising at Plovdiv University "Paisii Hilendarski", Bulgaria, created a series of digital educational illustrations. Their purpose was to serve as visual aids for illustrating mathematics educational content for primary school students. The main focus is on the methodology of work, describing the conditions and tools used, the main execution methods and the techniques and technologies applied. Although applied in a university environment, the technology for creating the illustrative material closely resembles (as much as possible) the real workflow of a contemporary graphic designer, building valuable skills and experience in the students and developing their professional expertise. In conclusion, the results of the applied methodology are discussed based on overall stylistic, compositional, anatomical, proportional, perspective and color development. An important aspect is the stylistic and compositional alignment of the illustrations with the accompanying text and its typographic characteristics.

4. **Angelova, N. 2024**, *Criteria for Creating Educational Illustrations for Children*, AIP Conference Proceedings, 11th International Scientific Conference "Techsys 2022" – Engineering, Technologies and Systems, Volume 2980, Issue 1, AIP Publishing, pp. 070010-1–070010-7, e-ISSN: 978-0-7354-4814-8, <https://doi.org/10.1063/5.0185099> [Scopus]

ANNOTATION

CRITERIA FOR CREATING EDUCATIONAL ILLUSTRATIONS FOR CHILDREN. Visualization through images is essential for the comprehensive understanding of text in textbooks and educational aids. This article presents the process of creating digital educational illustrations by students in the programme of Graphic Design with Advertising at Plovdiv University "Paisii Hilendarski", Bulgaria. Requirements and criteria are presented, relating to both the functionality and aesthetic qualities of the images – style, composition, anatomical construction, proportions, perspective and color design. The stylistic and compositional alignment between the illustrations and the graphic design of the accompanying text are also emphasized. The presented requirements and criteria serve two main functions: they support the process of creating illustrations by the students and guarantee the achievement of high-quality digital production. The article includes examples from the students' work that visualize the result of meeting the requirements.

III. RESEARCH ARTICLES AND SCIENTIFIC PUBLICATIONS IN UNREFEREED PEER-REVIEWED JOURNALS (INCLUDING IN NACID):

5. **Angelova N., 2022**, *A look at the attitudes of students studying graphic design towards the issue of intellectual property and copyright*. In: *Intellectual property in universities – new horizons of academic dialogue*. Sofia: Academic Publishing House Za bukвите – O pismeneh, 2022, pp. 98-110, ISBN 978-619-185-546-9

ANNOTATION

A LOOK AT THE ATTITUDES OF STUDENTS STUDYING GRAPHIC DESIGN TOWARDS THE ISSUE OF INTELLECTUAL PROPERTY AND COPYRIGHT. The present paper aims to present students' attitudes towards intellectual property and copyright issues. The results obtained from a survey conducted among several bachelor's degree programmes with artistic and creative orientation (whole or partial) – Graphic Design with Advertising, Pedagogy of Teaching Fine Arts, and Software Technologies and Design – are presented. The survey results are analyzed and commented on, along with some observations from the creative phase during the execution of practical graphic design tasks and the analysis of the students' final products. The issue of the use of licenced images and fonts is addressed by also tracking their awareness of copyright issues related to works they have created – entire design products, individual graphics or font design products. Some difficulties beyond the focus of graphic design concerning the discussed topic are also mentioned. Based on the conclusions and findings, an attempt is made to formulate proposals for overcoming the observed lack of formed knowledge and professional attitude on the issue.

6. **Angelova, N. 2022**, *Education in the Field of Intellectual Property and Copyright in Artistic and Creative Oriented Programmes*. In: *Intellectual Property in Universities – New Horizons of Academic Dialogue*. Sofia: Academic Publishing House Za bukвите – O pismeneh, 2022, pp. 111-125, ISBN 978-619-185-546-9

ANNOTATION

EDUCATION IN THE FIELD OF INTELLECTUAL PROPERTY AND COPYRIGHT IN ARTISTIC AND CREATIVE ORIENTED PROGRAMMES. The exposition presents the state of education on copyright and intellectual property issues in Bulgarian higher education institutions in artistic and creative programmes – both classical and in the field of design. The content of curricula for bachelor's and master's degree programmes in the studied field is reviewed. Based on normative documents (primarily curricula),

the initial information for the study is gathered, on which a quantitative analysis is conducted. The results of this analysis are presented, commenting on some important aspects, including the lack of mandatory education on intellectual property and copyright issues in the studied field and the consequences of this lack. The importance and necessity of in-depth study of the possibilities and limitations regarding copyright and intellectual property in artistic and creative programmes in the field of graphic design, which have high productivity of authorial images, graphics, fonts and complete design products, are emphasized.

7. **Angelova, N. 2023**, *Criteria and Indicators for Typographic Design of Highly Readable Text*. In: Yearbook of Plovdiv University, Faculty of Education, Volume II, Plovdiv University Publishing House, pp. 145 – 153, ISSN 2815-4134 (Print), ISSN 2815-4487 (Online)

ANNOTATION

CRITERIA AND INDICATORS FOR TYPOGRAPHIC DESIGN OF HIGHLY READABLE TEXT. The present article examines an important aspect of the perception and design of regular informative text and the weaknesses registered in the production of the professional field and during the training in graphic design. Achieving high readability of the text, as a primary typographic quality, plays a key role in overcoming these weaknesses. The main rules and patterns in three areas, related to improving text readability – micro- and macrotypography, and perception – are systematized. Based on this, a criteria framework of 7 criteria with 17 indicators has been developed, presented in the form of a checklist that objectively determines the degree of text readability. The accompanying ranking scale allows it to be used as a precise tool for controlling and evaluating the typographic qualities of regular text. This method can be applied in all forms of design when assessing informative text and can be used in education and the professional field by both specialists and non-specialists.

8. **Angelova, N. 2023**, *Interdisciplinary Education through Arts and the Use of Artificial Intelligence*. In: Proceedings "Interdisciplinary Education through Arts, Sports and Digital Technologies," PU "Paisii Hilendarski," Plovdiv University Publishing House, pp. 202–215, ISBN 978-619-185-546-9

ANNOTATION

INTERDISCIPLINARY EDUCATION THROUGH ARTS AND THE USE OF ARTIFICIAL INTELLIGENCE. The integration of forms and techniques from art into didactic and methodological plans in various educational fields is considered an innovative approach to achieving high-quality educational results. Currently, technological advancement offers a powerful and continuously developing tool in the form of artificial intelligence (AI), which is increasingly entering various spheres of life, including art and education. How can we preserve the achievements so far from integrating these areas and enhance them through the new technology? What interaction possibilities does the technology offer and what risks do pessimistic forecasts share? In discussing these fundamental questions, a brief historical overview of the development of AI is provided, along with a classification of AI types, focusing primarily on narrow AI due to its widespread availability and real applicability. Emphasis is placed on creating a rich educational environment and the complex development of the individual as key in the interdisciplinary interaction between art and education, with their features examined based on several examples of good practices. With regard to the use of artificial intelligence in the generation of images containing well-formed legible and readable text, there are still major weaknesses. In this context, the application of narrow AI is presented in terms of technological possibilities and uses. Finally, some perspectives on the development of AI are outlined, specifying its innovative integration into interdisciplinary education through the arts.