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#### DETERMINATION OF NECESSARY COMPETENCIES OF MODERN FASHION DESIGNERS

#### Abstract

The article deals with the history of development of competence-oriented approach to the studying of specialists in the world and in Ukraine; it presents the basic concepts of competence and competency, provided by national and foreign scientists, with regard to their usage in the education system and in the vocational training system. The levels of the specialists' competences are given. The components of studying of light industry designers are considered. The problems of studying, faced by modern garment enterprises of small and medium business, are identified. It is determined that a specialist in designing of garments must possess the professional competencies in order to be competitive in the modern labor market; especially he must know perfectly the laws of human functioning in environmental conditions, have the skills of designing of clothes with increased ergonomic and aesthetic properties, possess the techniques of designing of clothes with the help of modern computer programs. It is presented that in order to solve the design tasks at garment enterprises, the designer should be able to design various types of collections of clothes, be able to generate new ideas, perform technical and creative analysis of products, design the products with different base parameters, be able to solve the design tasks with the help of modern computer technologies, know the basic stages of design and technological works in light industry, be able to reproduce creative idea considering the properties of the material, find solutions for improving the quality of light industry products, as well as be able to develop technical documentation for the product. The features of studying of designers and fashion designers at Kyiv National University of Technologies and Design and other higher education institutions of Ukraine, which provide studying of the specialties "Artistic Design, Design and Technologies of Garments", "Technologies and Design of Garments" and "Design of Clothes", are considered.

**Keywords:** professional competency; specialist competence; competency-based education; educational process; designing of garments; artistic modeling; design of the clothes.

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## ВИЗНАЧЕННЯ НЕОБХІДНИХ КОМПЕТЕНТНОСТЕЙ СУЧАСНИХ МОДЕЛЬЄРІВ-КОНСТРУКТОРІВ ОДЯГУ

#### Анотація

У статті розглянуто історію розвитку компетентнісно орієнтованого підходу до підготовки фахівців v світі та в Україні, надано основні поняття компетенції та компетентності, які надають вітчизняні та закордонні науковці, щодо їх застосування у системі освіти та у системі професійної підготовки. Наведено рівні компетенції спеціаліста. Розглянуто компоненти підготовки фахівців з проєктування виробів легкої промисловості. Встановлено проблеми підготовки кадрів, з якими стикаються сучасні швейні підприємства середнього та малого бізнесу. Визначено фахові компетентності, якими повинен володіти спеціаліст з проєктування швейних виробів, щоб бути конкурентоспроможним на сучасному ринку праці, в тому числі, досконало знати закономірності функціонування людини в умовах навколишнього середовища, мати навички проєктування одягу з підвищеними ергономічними й естетичними властивостями, володіти методами проєктування одягу за допомогою сучасних комп'ютерних програм. Показано, що для вирішення проєктних завдань на швейному підприємстві модельєру-конструктору необхідно вміти проєктувати різні типи колекцій одягу, мати здатність генерувати нові ідеї, виконувати технічний та творчий аналіз виробів, проєктувати вироби з різними вихідними даними, вміти вирішувати проєктні завдання за допомогою сучасних комп'ютерних технологій, знати основні етапи проєктно-технологічних робіт у легкій промисловості, вміти відтворювати творчий задум у відповідності до властивостей матеріалу, знаходити рішення щодо підвищення якості виробів легкої промисловості, вміти розробляти технічну документацію на виріб. Розглянуто особливості підготовки дизайнерів та модельєрів-конструкторів одягу у Київському національному університеті технологій та дизайну та інших вищих навчальних закладах України, які здійснюють навчання за спеціалізаціями «Художнє моделювання, конструювання та технології швейних виробів», «Технології та дизайн швейних виробів» та «Дизайн одягу».

**Ключові слова:** фахова компетентність; компетенція спеціаліста; компетентнісна освіта; освітній процес; проєктування швейних виробів; художнє моделювання; дизайн одягу.

#### 1. Statement of the problem

The training of qualified competitive specialists is one of the main tasks, faced by higher education institutions. The main task of the educational process is to develop necessary students' competencies, in particular: the ability to work in non-typical circumstances, to think professionally and independently, to use knowledge for solving of practical tasks, to be mobile and constructive. In the conditions of modern dynamics of development of fashion industry sphere, the spectrum of specialists' competencies changes towards the need to develop new skills. The designer, as a specialist, is expected to be distinguished by a wide range of knowledge, a creative approach to solution of the stated problems, flexibility of thinking, ability to organizational and research work. The aim of the article is to determine necessary competencies of modern designers by analyzing relevant programs for professional training of students in higher educational institutions of Ukraine.

### 2. Analysis of recent researches and publications

The one of the founders of competence-oriented approach are Lyne Spencer and Signe Spencer, who have conducted the researches on identification and significance of competences in personnel management since the early

1970s, based on the works of D. McClelland [1]. The ideas that competence and knowledge are the critical sources of competitive advantages have been supported in the late 1980s – early 1990s and have been transformed into the concept of *Competency-Based Education* in the USA, which is based on business requirements for graduates of higher educational institutions regarding the application of knowledge when making decisions in specific situations [2].

In 1986, the International Board of Standards for Training, Performance and Instruction (IBSTPI) developed the basic set of competences in the field of training, resulting from researches, discussions and approvals by a team of scientists and professionals in the field of design. In 2000 and 2012, the Board reviewed the competences of Instructional Designers due to the changes in basic theories, practices, technologies and developments compiling the field of educational design. In our days, there are twenty-two (22) updated ID competences, which are grouped into five (5) areas and supported by one hundred and five (105) statements on efficiency [4].

In accordance with the research of O.V. Varetskaya [5], scientists along with the concept of *competence* use the concept of *competency*, which is synonymous or divergent in meaning (this was founded in the 1960s). In English, they are synonyms (competence), which leads to some confusion due to their inconsistent use. Foreign scientists also use the term *competency* to refer to professional competences.

Kalashnikova S.A. [1] explains that the concept of competency is older than the concept of competence with regard to their usage in the education system and in the vocational training system. Having examined the definitions, provided by the dictionaries, she presents the results: "The competency means the authority and experience. Competent means qualified. The competence is the quality, the terms of reference". The author concludes that the competency is the ability of a person to perform a certain (in particular, professional) activity effectively, and the competences are the personal characteristics of a person, which determine his or her behavior and affect the level of performance of a certain (in particular, professional) activity. A.O. Kasich [2] states that, according to the International Board of Standards for Training, Performance and Instruction (IBSTPI), the competency is the ability to perform an activity, to carry out a task or work in a qualified manner. At the same time, the concept of competency includes a set of knowledge, skills and attributes that enable the individual to perform an activity or to carry out the defined functions effectively, aimed at attaining of certain standards in the profession or the type of activity.

The Organization for Economic Co-operation and Development (OECD) defines the *competency* as the ability to meet complex demands or to complete tasks successfully [6]. According to the Tuning project [7], the result of the study is formulated as a level of competency that a student must attain. Competencies are a dynamic combination of cognitive and meta-cognitive abilities, skills, knowledge and understanding, interpersonal, mental and practical abilities and skills, and ethical values. The development of these competencies is the purpose of all academic programs, which are based on a centuries-old heritage of knowledge and understanding. The current stage of development of Ukrainian society is accompanied by the formation of a new education system. This process is characterized by significant innovative changes in pedagogical theory and the individualization of educational programs. The modernization of the current education system is aimed at achieving the correspondence between the educational process and the practice of management, the development of information management skills; the graduate must solve scientific and practical problems creatively. The competence-oriented approach became crucial in the preparation of specialists after the adoption of the Law of Ukraine "On Higher Education" in 2014 [8], which intensified Ukraine's entry to the European educational space.

#### 3. Presentation of the main material

The adoption of the Law of Ukraine "On Higher Education" in 2014 intensified the conduction of scientific and pedagogical researches and developments in the field of competency approach to the training of specialists. The Law defines that "the competency is a dynamic combination of knowledge, abilities and practical skills, the ways of thinking, professional, ideological and civil qualities, moral and ethical values, which determines the capability of the person to perform professional and further educational activities successfully and is the result of training at a certain level of higher education" [8].

The achievement of a certain level of specialist's competence is essential as well. At the first level of competence, a person has an incomplete orientation in terms of tasks of this type and is capable to solve only single tasks of this type. The second level of competence provides the solution for specific types of tasks of this type, with the use of generalized methods with understanding of conditions and limits of their applicability. The level of generalization of the methods used allows solving certain groups of tasks within this type of tasks, but not any tasks. The third level of competence provides for the solution of any tasks of this type by different methods, taking full account of the existing conditions of the task. In this case, the essential conditions of the task are identified independently [2].

The conditions of development of clothing market and production point to restructurisation, which has taken place and is taking place in these areas of production. Due to the increased competition in the garment industry, a lot of enterprises were restructured: they reduced the production, transformed from large-scale garment enterprises into medium-scale and small-scale enterprises, and focused of the production of garments, which were in demand. The network of private ateliers specializing in the production of items of a specific range or from the certain types of materials (knitwear, fur, leather, fabric) has increased significantly. Design studios and Fashion Houses have become widespread. The labor market is also changing. Specialists in the design and the technologies of manufacturing of garments are expected to complete the entire process of designing of the product. The management of the enterprise, regardless of its capacity or form of ownership, wants to hire a specialist, who is oriented in modern technologies of designing and artistic decoration of clothes, can design complex, interesting models of clothes of various assortment, made from different materials, etc.

An important component of training of specialists in the design of garments is a thorough knowledge of the laws of human functioning in the environment and the creation of the modern competitive clothes on this basis, which has enhanced ergonomic and aesthetic properties. The problem of training of personnel, who can perform computer modeling of clothes and create the products with predicted characteristics, is also important. Computer technologies have become an integral part of the process of designing and manufacturing of the clothes for many businesses. The amount and types of works performed by computer programs depend on the features, capabilities and needs of the production itself.

The authors of the article [9] analyze the production activity of garment manufacturing companies and firms, which operate in Europe, China, America and take some sector in Ukraine, as well as number of large Ukrainian enterprises. For the most part, they use computer-aided design (CAD) systems to develop the design of the clothes and need the specialists with relevant professional competencies. The analysis of small and medium-sized enterprises demonstrates that it is financially inappropriate for them to use powerful automated systems because of their high cost. Instead, such enterprises make extensive use of versatile graphical programs to design new models. According to such conditions of production, specialists who have deep knowledge in the field of modern information technologies are needed. Designer should know the basics of computer graphics and be able to use versatile graphical programs for printing and business graphics, drawing and presentations in order to present new collections of garments to the consumers.

The article [10] provides a comprehensive description of the discipline "Computer Design of the Products", which is taught in Kyiv National University of Technologies and Design. This discipline is key for obtaining important professional competencies, described above, by the future designers. According to the requirements of the program profile, students should know: capabilities and functions of graphical programs for creation of images of artistic objects; basic principles of development of systems of computer-aided design of the clothes; development of clothes design in automated mode; peculiarities of modification of patterns contours in CAD of clothes; opportunities of modern CAD for solving different stages of design of light industry products.

The introduction of computer technologies has taken a specialist, engineer in the field of technology and design of garments to a new level and requires him to complete new skills. In order to train competitive and highly qualified specialists, it is necessary to do some solid work on theoretical and practical basics of computer-aided design and construction of clothes. As S.A. Kalashnikova points out, paradigm changes in education is associated with the transition from qualifications to competences, from knowledge-oriented education to the focus on personal competences for effective life [1]. The emphasis on the student's acquisition of a certain competency or set of competencies leads to the transparency of purposes of a certain educational program [7, p. 16].

We have analyzed the educational programs of higher education institutions of Ukraine, which provide training in the specialties "Artistic Design, Design and Technologies of Garments", "Technologies and Design of Garments" and "Design of Clothes", such as Kyiv National University of Culture and Arts [11], Kharkiv State Academy of Design and Fine Arts [12], Kherson National Technical University [13], Mukachevo State University [14], Lutsk National Technical University [15], and so on.

At Kyiv National University of Technologies and Design, the educational-professional program "Modeling, Designing and Artistic Decoration of Light Industry Products" is focused on modern scientific researches in the field of designing and modeling of clothes; it takes into account the specifics of the work of sewing enterprises of various capacity in the fashion industry, presents up-to-date specializations to the students, within which they determine the directions of their professional and scientific career. The emphasis of educational program is on the formation and development of professional competencies of future specialists in the field of design of the products, on the study of theoretical and methodological provisions, organizational and practical tools for the creation of highly aesthetic, ergonomic, competitive clothes and other light industry products. Professional competencies, which, among other things, are acquired by students during the study of the educational program "Modeling, Design and Artistic Decoration of Light Industry Products" [16], include: ability to solve a wide range of specialized problems and tasks in professional activity by understanding their fundamental principles and using theoretical and experimental methods; knowledge of the basic stages of design-technological works in light industry, acquisition of skills for prevention and elimination of the causes of technological disturbances; formation of a creative personality of a specialist in the fashion industry, who perfectly possesses modern innovative methods of design-projection and promotion of new models of clothes, and so on.

Khmelnytskyi National University studies specialists of the specialty "Artistic Modeling, Design and Technologies of Garments". The feature of the program is integration of design-artistic and technological study of the light industry technologies [17]. As the result of the study, students acquire, among other things, the following competencies: ability to use the methods of designing, modeling and stylistic solution of the light industry products and to realize the project; ability to adapt and apply the latest technologies for the manufacturing of products of different assortment and designing of flexible technical processes, based on knowledge about the alternative methods of processing.

#### 4. Conclusions

It is determined that the training of specialists with the use of competence-oriented approach to the training of specialists makes it possible to provide necessary competencies for the further effective work of graduates at garment enterprises. The comparative analysis of programs of designers' training at higher educational institutions of Ukraine, as well as the requirements of the clothing industry make it possible to identify the set of competencies, which are necessary for modern designers, such as: ability to organize design and creative process; knowledge of the basic stages of design and technological works in light industry; ability to perform technical and creative analysis of products; ability to design the products with different base parameters; capability to use different methods for

determining materials characteristics and products of light industry and to find appropriate solutions for improving their quality; ability to visualize the creative idea and to reproduce creative idea in the material; knowledge of production equipment of different types and the ability to use it; capability to use computer technologies for solving project tasks; ability to develop technical documentation for the product; capability to check garments for compliance with national and international standards; proficiency in professional terminology; capability to design different types of clothes collections; understanding of the concepts and structure of the fashion industry; ability to generate new ideas.

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