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## COMPETENCE ANALYSIS OF FASHION DESIGN CURRICULUM IN HIGHER EDUCATION SYSTEM IN TRANSITION ECONOMIES

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The transition economies of today are striving to generate human resource in order to support the requirements of industrialization and developments. The governments of developing economies have essentially dedicated policies for capacity building to develop skilled labor in fashion and textile sectors. As we stream ahead in this development it becomes necessary to analyze if the design curriculums could support the need of generating skilled labor from existing education systems.

This study aims to provide the students, academic organizations, teachers, industry and the stakeholders a very precise understanding on what subjects are taught in the courses and what importance do they serve finally. Further on, the aim of the work is to justify the rationality of the formation of general socio-cultural competence in the process of fashion education in studying the processes in developing economies.

The analysis of curriculums is based on Competency-Based Education model which exhibits the credibility in various competence areas that are required to support the growth of developing economies and the individual in a multi-dimensional way. The curriculums are selected and studied from the two government universities in Ethiopia and Ukraine.

**Keywords:** design education, competency-based education (CBE), curriculum development, competence learning, capacity building, transition economies

**Курана К., Рябчиков М.Л.** «Компетентнісний аналіз навчальних планів вищої освіти для дизайнерів моди в країнах з перехідною економікою»

Країни з перехідною економікою сьогодні прагнуть сформувати людський ресурс для того, щоб підтримати вимогу індустріалізації і розвитку. Уряду країн, що розвиваються, притаманна особлива політика щодо створення потенціалу для розвитку кваліфікованої робочої сили в сфері моди і текстильної промисловості. Для руху вперед в цьому розвитку виникає необхідність проаналізувати, які проектні навчальні програми могли б підтримати необхідність створення кваліфікованої робочої сили в існуючих системах освіти.

Це дослідження спрямоване на забезпечення студентів, наукових організацій, викладачів, промисловості і зацікавлених сторін дуже чіткого розуміння того, які предмети викладаються на курсах і яке значення вони мають для спеціаліста. Далі, метою роботи є обґрунтування раціональності формування загальної соціально-культурної компетентності в процесі освіти в сфері моди при вивченні процесів в країнах, що розвиваються.

Аналіз навчальних програм ґрунтуються на компетентнісному підході на основі моделі освіти, яка проявляє себе в різних областях компетенції, які необхідні для підтримки зростання економік, що розвиваються і особистості в багатовимірному шляху. У навчальних програмах обрані і вивчені дані з двох державних університетів в Ефіопії та Україні.

**Ключові слова:** дизайн освіта, компетентнісний підхід, розробка навчальних програм, навчання, навчальний план країни з перехідною економікою

*Курана К.Рябчиков Н.Л.*, «Компетентностный анализ учебных планов высшего образования для дизайнеров моды в странах с переходной экономикой»

Страны с переходной экономикой сегодня стремятся сформировать человеческий ресурс для того, чтобы поддержать требование индустриализации и развития. Правительства развивающихся стран, присуща особая политика по созданию потенциала для развития квалифицированной рабочей силы в сфере моды и текстильной промышленности. Для движения вперед в этом развитии возникает необходимость проанализировать, проектные учебные программы могли бы поддержать необходимость создания квалифицированной рабочей силы в существующих системах образования.

Это исследование направлено на обеспечение студентов, научных организаций, преподавателей, промышленности и заинтересованных сторон очень четкого понимания того, какие предметы преподаются на курсах и какое значение они имеют для специалиста. Далее, целью работы является обоснование рациональности формирования общей социально-культурной компетентности в процессе образования в сфере моды при изучении процессов в развивающихся странах.

Анализ учебных программ основаны на компетентностном подходе на основе модели образования, которая проявляет себя в различных областях компетенции, которые необходимы для поддержания роста развивающихся и личности в многомерном направлении. В учебных программах выбраны и изучены данные из двух государственных университетов в Эфиопии и Украины.

Ключевые слова: дизайн образование, компетентностный подход, разработка учебных программ, обучение, учебный план страны с переходной экономикой

**Introduction.** The development of the global educational space and accession of new countries to interuniversity cooperation causes the development of a fundamentally new education paradigm. It should be borne in mind that a modern multicultural society requires the preparation of a holistic specialist. The personality of such a specialist should be answered by creativity, the ability to lead innovation, solve social problems and serve the society. The 21<sup>st</sup> century individual must quickly make independent decisions, for which one is responsible and must contain extensive socio cultural communication skills that are part of the overall competence. A. A. Rean and N. V. Bordovskaya argue that development of a person as a subject of activity necessarily includes the factors which form a socially-mature person:

- development of intelligence,
- development of positive thinking, positive attitude,
- development of autonomy, responsibility,
- Development of motivation leading to self-development, self-realization.

This problem is especially urgent in countries with transition economies, where the establishment of such competence is constrained by the traditional lag in cultural, linguistic, and communicative factors in the training of specialists.

Analysis of academic literature shows that the simultaneous formation of general cultural, communicative, special skills is formed in the fashion field. This corresponds to preparation in the direction of design in universities.

The formation of these competencies involves not only learning the general rules of communication, but also the formation of a personality ready for a successful intercultural dialogue of cultures that is impossible without socio cultural knowledge. In this regard, the problem of the formation of socio-cultural competence is actualized. In our opinion it can be formed in the best way during preparation of students for fashion design. A number of works are devoted to the issues of forming competencies in modern specialists. The article [1] is devoted to questions of formation of competencies.

A set of basic (core) competencies should include:

- Knowledge - understood and assimilated the subject of scientific information that is the basis of his conscious, purposeful activity. Knowing divided into empirical (factual) and theoretical (conceptual, methodological).

- Skill - the ability to apply knowledge to perform tasks and solving problems and challenges. Skills are divided into cognitive (intellectual, creative) and practical (based on skill using methods, materials, guidelines and tools).

- Communication - the relationship of the purpose of transmitting information, coordination, joint activities.

- Autonomy and responsibility - the ability to independently perform tasks, solve problems and problems and take responsibility for their performance

Knowledge and skills must be underpinned by values. Values define a person's character. They shape the beliefs, attitudes and actions of a person, and therefore form the core of the framework of 21st Century Competencies. As suggested by Ministry of Education, Singapore the figure 1 below suggests 21<sup>st</sup> century competency and student outcomes of education systems.



**Figure 1. Framework for 21<sup>st</sup> century competencies and student outcomes. (Source: <https://www.moe.gov.sg/education/education-system/21st-century-competencies>)**

### Competence Based Education (CBE)

*Competencies are the knowledge, skills, and/or behaviors students must master in a specific content or performance area. – Q.E.D. Foundation.*

Competence is a dynamic combination of knowledge, skills and practical skills, ways of thinking, professional, philosophical and civic qualities, moral and ethical values that defines the person's ability to carry out successfully vocational and further training activities is the result of training at some level of higher education. DeSeCo defines competence as a 'system of internal mental structures and abilities assuming mobilization of knowledge, cognitive skills, practical skills, and also social and behavioral components such as attitudes, emotions, values and ethics, motivations for successful realization of activity in a particular context' [10]. It utilizes appropriate methods for interacting sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, racial, ethnic and professional backgrounds, and persons of all ages and lifestyle preferences (competency from: Council on Linkages Between Academia and Public Health Practice).

There is a growing interest in the concept of 'competence learning' in various areas of education, training and professional development. Competences are commonly assumed to represent more than the levels of knowledge and skills and to account for the effective application of available knowledge and skills in a specific context. But, with this trend, the term 'competence' is being used in many different ways. At the crux of competency-based learning and education is a focus on student mastery

of performance and learning outcomes through a set of pre-defined learning objectives [9]. At the same time, attention is not paid to the formation of sociocultural and other general competencies. In traditional education systems student achievement has been determined by using credit- or seat-hour parameters as a benchmark for postsecondary program completion, rather than proficiency within a set of learning objectives.

The work [2] is devoted to the issues of competence registration in the curriculum development.

Competences are intensively discussed in the context of cross-curricular themes, such as Sustainable Development and Education for Sustainable Development (ESD), especially in light of the United Nations Decade for ESD (2004–2016). Recent literature on ESD lists a number of competences for ESD in various fields with the exception of teacher education. A competence model for ESD for educators was generated in the Austrian research project KOM-BiNE (Competences for ESD in Teacher Education) as part of a large-scale EU project. The KOM-BiNE competence model consists of areas of competences within fields of action. The constituent elements of the competence model are described in detail and are illustrated with examples.

The importance of sociocultural competencies is considered in [3].

Understanding human development in the context of socioeconomic–cultural change requires a consideration of both the contextual and the global aspects of development that involves an “integrative synthesis” of the [2]. Such a synthesis may be considered a conceptual model or goal of human development and may be observed in different spheres of development. This article proposes “autonomous-related self” and “cognitive–social competence” as [2] integrative syntheses that provide insight into adaptations to changing environmental demands and suggests that although they are not adequately recognized in psychology, these syntheses can be considered as aspects of optimal development. In [4] optimal conditions for the formation of socio-cultural competences are considered.

In the main part of the works [5, 6], sociocultural competencies are considered as communicative skills in the study of foreign languages, while their understanding is much broader and should be taken into account in any education. To unify the development of the competence of specialists, the European Tuning project was proposed [7, 8]. It is applied only to several specialties. For fashion design, the project has not yet been applied.

The basic documents that we used in the preparation of the study are the international classification of education [9], as well as the methodology for the development of the European Tuning project [8].

According to these documents, the spheres of education are divided into nine groups:

- 0 - The general program;
- 1 - Education;
- 2 - Humanities and arts;
- 3 - Social sciences, business and law;
- 4 - Science;
- 5 - Engineering, construction and processing industry;
- 6 - Agriculture;
- 7 - Health care and social security;
- 8 - Service.

The uniqueness of fashion education at this stage of research is that it can be represented in a number of groups, since this branch is related to art (group 2), business, marketing in design (group 3), engineering methods of making clothes (group 5), service of citizens (group 8). In some cases, it can also be represented in groups 1, 4 and 7.

Kim Carter, Executive Director of the Q.E.D. Foundation, described a well-designed competency as having the following characteristics:

- *A competency describes knowledge and skills that can be applied to novel, complex situations.*
- *The skills described in a competency will be valuable ten years from now even if the content knowledge has changed.*
- *Learning objectives are accompanied by clear performance criteria that help students identify their performance level(s) and what they need to do to improve.*

• *Learning objectives are accompanied by effective rubrics that help students understand themselves better as learners.*

• *The competency and the learning objectives allow for personalization and opportunities for deeper learning.*

**Analysis of the Curriculums.** For the further analyze of possible competencies of the graduate in fashion design, a detailed study based on CBE model was conducted at two universities in Table 1. The conditional names of the module of a group of disciplines, the corresponding disciplines for EiTEX, Bahir Dar University; which train specialists in fashion design direction, are given. Also approximate correspondences of educational disciplines are given for Ukrainian Engineering Pedagogical Academy; where the preparation for the direction of the teachers of fashion design is made.

The grouping of items demonstrates the correspondence of the main modular tasks of the two universities.

*Table 1:*

*Comparison of the curriculum. Source: Authors. (EiTEX, Bahir Dar University<sup>©</sup>; Ukrainian Engineering Pedagogical Academy<sup>©</sup>)*

| Module Number | Module Name              | Courses under Module in Bahr Dar University | Corresponding courses in Ukrainian Engineer Pedagogic academy |
|---------------|--------------------------|---|---|
| 01            | Humanity and Language    | Sophomore English                           | Foreign Language (for professional purposes)                  |
|               |                          |   | Ukrainian Language (for professional purposes)                |
|               |                          | Reasoning skill (logic)                     | Psychology  |
|               |                          |   | Rhetoric  |
|               |                          | Civics & Ethical Education                  | Politology  |
|               |                          |   |   |
|               |                          |   | Didactic bases of professional education                      |
|               |                          |   | Methodological fundamentals of professional education         |
|               |                          |   | Basics of labor protection                                    |
|               |                          |   | Ecology   |
| 02            | Communication Skills     | Introduction to Economics                   | Economics   |
|               |                          | Communication Skill                         | Communication processes in educational activities             |
|               |                          |   |   |
|               |                          | Research Methods                            | Philosophy  |
| 03            | General Computing Skills | Business Mathematics                        | Higher mathematics  |
|               |                          | Introduction to Computer and Programming    | Informatics and Computing                                     |
| 04            | Fundamentals of Textiles | Textile Materials I                         | Materials for garments  |
|               |                          | Textile Materials II                        |   |
|               |                          | Fabric Structure & Design                   |   |
| 05            | Fashion Industry         | Introduction to Fashion Industry            | Technology of garments  |
| 06            | Foundation of Drawing    | Object Drawing                              | Drawing and plastic anatomy                                   |
|               |                          | Model Drawing                               | Applied graphics  |
|               |                          |   | Engineering and computer                                      |

|    |                         |   |   |
|----|-------------------------|---|---|
|    |                         |   | graphics                                  |
| 07 | History of Fashion      | History of Fashion I- Western                     | History of art                            |
|    |                         |   | History of costume and style              |
|    |                         |   | History of Ukraine                        |
|    |                         | History of Fashion II- Ethiopia                   | History of Ukrainian Culture              |
| 08 | Design Theory           | Elements of Design                                | Basics of composition                     |
|    |                         | Design Principles                                 |   |
|    |                         | Colour Theory                                     | Painting and bases of cromatics           |
|    |                         |   |   |
| 09 | Fashion Illustration    | Fashion Illustration I                            | Design of artistic systems (master plan)  |
|    |                         | Fashion Illustration II                           |   |
|    |                         | Portfolio Development in Fashion Design           |   |
| 10 | Patternmaking- Women    | Patternmaking - Women I                           | Designing of clothes                      |
|    |                         | Patternmaking -Women II                           | Typical design of clothes                 |
|    |                         | Fashion Draping                                   |   |
| 11 | Construction Techniques | Construction Techniques I                         | Designing of clothes                      |
|    |                         | Construction Techniques II                        | Typical design of clothes                 |
|    |                         | Garment Surface Ornamentation                     |   |
| 12 | Patternmaking- Men      | Patternmaking- Men I                              | Designing of clothes                      |
|    |                         | Patternmaking- Men II                             | Typical design of clothes                 |
|    |                         | CAD in Patternmaking                              |   |
| 13 | Garment Construction    | Garment Construction I                            | Designing of clothes                      |
|    |                         | Garment Construction II                           | Typical design of clothes                 |
| 14 | Fashion Design          | Fashion Design I                                  | Artistic design of clothes                |
|    |                         | Fashion Design II                                 | Modelling of clothes                      |
|    |                         | Leather Design                                    |   |
| 15 | CAD in Fashion Design   | CAD in Fashion Design I                           | Computer design                           |
|    |                         | CAD in Fashion Design II                          | CAD clothing                              |
| 16 | Fashion Management      | Garment Costing                                   |   |
|    |                         | Apparel Quality Management                        |   |
|    |                         | Project Management                                |   |
| 17 | Fashion Business        | Fashion Forecasting                               | Business Economics and Marketing          |
|    |                         | Fashion Marketing & Merchandizing                 | Marketing and Merchandizing (master plan) |
|    |                         | Intellectual Property Rights for Fashion Business | Patenting and copyright (master plan)     |
|    |                         | Entrepreneurship for Fashion Designers            |   |
| 18 | Project                 | Term Project I                                    |   |
|    |                         | Term Project II                                   |   |

### Results and Discussions

Comparative analysis of the curriculum allowed putting forward a hypothesis about comparability of competencies obtained in various universities. We will further note that in considering competence in the following form and also note several key provisions and formulations.

Based on the analysis of the curriculum for fashion designers on the example of the EiTEX, Bahir Dar University (Ethiopia) and Ukrainian Engineering and Pedagogical Academy (Kharkiv, Ukraine), we can identify the following key competencies acquired during training.

The core competence for all key competencies is the base and includes the experience of cognitive, educational, research and other activities; the ability to see and formulate the problem, find solutions and choose the most effective of them; readiness to be responsible for your choice; the ability to give a reasoned assessment of different views and positions, realistically assess their capabilities.

- *General Social competence* is the ability to form their own ideological position in general terms, the ability to analyze social and political relations and formation of adequate models of social behavior, the capacity for storage, dissemination and enrichment of cultural potential, the ability to receive, process and reproduce the information on state and foreign languages. This competence meets module “Humanity and Language” of table 1.

- A typical *scientific competence* - the ability to solve typical tasks specific to a particular subject area, basic skills on mathematical, physical and graphical modeling in the subject area, the ability to use modern computer technology in the subject area, The ability to analyze the results of calculations, measurements and observations in the subject area. This competence meets module “General Computing Skills”.

- *Historical, cultural and cultural enlightenment competencies* serve as the internal basis for solving creative, research, organizational, methodological and other tasks. This includes competence in the field of aesthetics, artistic creativity and artistic culture, the competence of the historical and cultural cycle (art history, the history of material culture, as well as the history of certain arts by specialization), sociological and socio-psychological knowledge, artistic influence on the formation of the aesthetic environment and artistic culture of the population. This competence meets module “History of Fashion”.

- *Art competence* skills in academic drawing and painting, competence in the constructional and artistic cycle, the competence of specific features of related arts (painting, graphics, and sculpture) and in the problems of artistic synthesis. Competence meets module “Foundation of Drawing”.

- *Technological and project-technical competence* – skills and abilities in materials science, technology of industrial materials, principles of construction and technical design, manufacturing processes and production, equipment and tools, manufacturing techniques, modeling, prototyping. Competence meets module “Fashion Industry”.

- *Material science competence* - the ability to use knowledge of material properties specific to a particular subject area corresponding to the technological, design, environmental and other requirements. Competence meets module “Fundamentals of Textiles”.

- *Especially professional competence* - the ability to analyze the system of technical and educational systems, processes and environments, the study of advanced industrial and teaching experience, the introduction of domestic and foreign science and technology. Competence corresponds module “Fashion Design”.

- *Designing competence* - the ability to solve typical specialized tasks related to the choice of materials, execution of necessary calculations, designing technical objects in their subject area. Competence meets the module “Garment Construction”.

- *Computer competence* - ability to use modern methods of automation of the design, manufacturing and engineering (CAD / CAM / CAE). Competence corresponds the module “CAD in Fashion Design”.

- *Managerial competence* - the ability to plan and organize their professional activities and the activities of subordinates or students in the industrial sector or education, providing the necessary conditions for the use of space-time, logistical, financial, economic and others resources considering relations of objectives, time and space . Competence corresponds to module “Fashion Management”.

- *Creative competence* - the ability to generate original, creative ideas to solve industrial and educational situations. Competence corresponds to module “Research Methods”.

- *Communicative competence* - the ability to activate quickly interact with other business or educational production processes, establishing contacts in the labor and student group, and constructive conflict resolution, possession of methods of self-emotional state. Competence corresponds to module “Communication Skills”.

• *Marketing competence* - the ability to analyze the technical and economic parameters of technological processes in their subject area. The ability to carry out systematic monitoring of industrial or educational processes and quickly correct them by appropriate additional technology, competence in the organization and management of the project cycle, economic aspects, management and marketing of industrial art production enterprises, design and engineering organizations, labor safety issues, safety engineering, technical aesthetics. Competence corresponds to module "Fashion Business".

Consider here that socio-cultural competence may be determined by the following components:

• Cognitive (knowledge of the culture, history, knowledge, traditions, norms and rules of communication, interaction, etiquette, methods of application of this knowledge-based updating);

• Motivational values (motives that encourage people to organizing activities, motivation for interaction, tolerance, beliefs and principles that person operates in the communication and behavior, emotional attitude to ethnic groups);

• Action-behavioral (social and cultural skills: volitional regulation, specific speech acts; experience communication in a multicultural society). Formed action-behavioral component provides the ability to dialogue between cultures, display appropriate behavior in intercultural situations

Informative analysis of individual modules of the curriculum shows the presence of socio-cultural components in each section. In this regard, it can be argued that, together with the integral activity competence of a fashion designer, which can sound like «ability to solve complex and specialized practical problems in educational and fashion industries that involves the use of certain theories and methods of design and pedagogy and is characterized by complexity and uncertainty conditions», complex socio-cultural competence is formed as the qualitative characteristics of the individual, based on the totality of knowledge acquired social and cultural spheres of life, values; the ability and willingness to intercultural dialogue.

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