

SCIENTIFIC AND EDUCATIONAL COMPONENTS WITHIN THE PROCESS OF SUSTAINABLE GARMENT DESIGN AND TECHNOLOGY DEVELOPMENT FOR PEOPLE WITH DISABILITIES

Tolmacheva G.V., Gerasimova J.L.

SEE HPE «Omsk State Institute of Service», Omsk, e-mail: rector@omgis.ru

The goal of the given project is the formulation and research of the issues which belong to a field of integration and rehabilitation of people with disabilities. The main focus is the social adjustment in the process of design education within the context of the discipline of "Costume and Garment design". It deals with the mission of designing comfortable products for people with disabilities, covering the educational, scientific and ethical aspects of design in its relevance and significance for the modern community. The introduction of the disability related projects and tasks into the educational process of teaching or research work enables to resolve various problems in complexity covering not only the field of both ethical and aesthetic matters but also practical application of design and technology. In the process of studying the subject and setting on the project objectives physical disability is considered a social phenomenon. The study is aiming to provide both the ways of targeted professional group care for people with disabilities who share similar psychological characteristics, specific changes in the body, or devices for rehabilitation, as well as bespoke production of items and capabilities of people with disabilities for selected individuals with specific disabilities. Several concept design directions are formed to provide the grounds of research and fulfillment of the given task: the concept development of the body – friendly garment interaction for people with disabilities; concept of environmental protection, which allows to adapt garments to the various environmental conditions; the concept of comfortable individual friendly fabrics outsourcing, patterns development, cozy trimmings and finish technology and fabrics designed for people with disabilities; concept of anesthetization of the deformed body parts; the concept of "friendly" color.

Keywords: design, design education, adaptive design, clothes, disability, comfort, project development, social integration, adaptation

Modern standards of higher and postgraduate education are introducing a high level of requirements for the implementation of basic educational programs. As well as organizing the formation of professional competencies, they also put forward a necessity of creation of the conditions requested for individual's socialization within the educational environment. It is highly important to form a comfortable socio-cultural environment that enables the development of social interactions, within systematic nature of activities in educational process.

In a civilized multicultural society sex, ethnic, subculture and linguistic minorities have the right not only to be "equal", but also to ensure that they maintain their "individuality" [1]. Modern cultural critique suggests that the idea of the body "norm" is artificially constructed, like the concept notion of the racial or sexual norm [2]. This shift towards improving the aspects of social interaction within the education process is a direct reflection of the changes happening globally, targeted to change the core approach of individuals towards themselves. It is believed, that the transformations that have taken place within in all the areas of modern development: within the economy, technology, and social structures, had enabled individuals to obtain a new social position, especially in relations to other people and to themselves.

According to D. Feldshteyn, the professor of REA, due to the expansion of social contacts caused by the growth of migration, a modern

individual nowadays has a new approach to perception, understanding, exploration and the analysis of the world that he has changed. The world keeps changing the individual as well, because it is two way process. This is manifested at various levels of human existence: physiological, psychological and social. It objectively is leading to an increase of social activity of the people, their deeper reflection on others and themselves. That provides the restructuring of mentality, a shift in major goals, values and orientation of individuals. That forms new social needs and new opportunities for their realization [3].

Many scientists research and depict core features the modern men's behaviors. Within their research they observe, for example, the lack of responsibility, increased anxiety, aggression and other qualitative changes in interpersonal, intergroup relationships, in relation to the various circumstances of life.

Any higher education facility should be interested in the healthy socialization of the individual graduates and can create an environment for its successful maintenance. The more emphasis is put towards successful socialization, the more important it becomes to improve the educational component in many disciplines of the core educational programs. Specialists at the Department of "Costume Design" of Omsk State Institute of Service approached the issues of socialization of their students from the perspective of combining social, scientific

and educational processes. They focused their interest in the aspects that strengthen the relationship between the design part of the educational process and communication activities. In terms of the educational and research process, it acquires a new strategic perspective.

The structure of the higher education facility has specific features in its current condition. The older generation, socialized through its own experience, which was formed by the ideology of socialism is trying to influence the generation of pure individualists. This new generation finds its own perspectives in the "enrichment" of individuality, aiming to develop character traits necessary for independent living, the establishment of the individual "I", the conquest of a particular social position and realization of themselves in it [3].

Generally, the active period of undergraduate and postgraduate academic study may influence the formation of an active consciousness in the growing person. Students encounter the role of socially responsible entity's that can take responsibility not for themselves only. They show the responsibility in a common effort, sharing the common cause and providing services for other people. Within the walls of the higher educational facility we are dedicated to the goal of forming the new generation of people. Current graduates are the next generation to build up the relationships within the community, which will have a modern approach to the problem of socialization and integration of disabled people into a socially meaningful environment.

Domestic and foreign researchers of the social integration for people with disabilities, emphasize the point that disabled people with a positive and confident "self-concept", who are "psychologically well-off" are more positively perceived by others within the social interactions.

Psychological well-being depends upon the communication-friendly environment and active social adaptation. So, the student community may contribute to the formation of psychological well-being for "young people with disabilities". According to sociologists and psychologists, young disabled individuals are a "tin-canned" demographic resource. Their successful rehabilitation within the college community can positively improve their social integration [4]. It is believed that, disability is not only a medical, but a social phenomenon. In modern Russia – who keeps its distance more: people with disabilities from the rest of the society or society from them? People with disabilities and their close entourage in many cases had to shape their own social environment, where they are banned or willingly remote themselves from the world of healthy people.

Modern society is moving towards finding productive means to overcome a social division [5].

General areas of assistance provided by the State of Russia for people with disabilities are: healthcare support; legal and financial support; medico-social and vocational rehabilitation; disabled public access; education; employment; media campaigns promoting positive and friendly attitude towards people with disabilities.

Possibly, to provision of more individual care will be even more effective. Perhaps, communication with specific individuals, assistance with smaller, not global, but personally important issues, can raise the level of motivation for rehabilitation in disabled individuals. It can encourage their personal desire to increase the degree of their social and psychological adaptation, and change their self-image and the perception of their disability as less dramatic and challenging, to form an optimistic approach.

People with disabilities may receive support and encouragement from their peers – through communication, bringing together young people during various social events that provide both material and spiritual involvement and care. Not only healthy people should understand the issues of disabled people and learn to treat them as equals or provide positive encouragement and assistance when needed, but also people with disabilities have to overcome their own acute sense of isolation, inferiority, negative self-differentiation from the others, and master the art of communication. Joint efforts of sociologists, psychologists and teachers are necessary for the urgent development of specific educational programs in this area [6].

Our creative project aim was to create comfortable garment products for people with disabilities. Selecting that project we have put together the aspects of ethical, educational and scientific components of the course of design engineering. A researched group of handicapped individuals was matched by the criteria of presence of similar physical disabilities, similar psychological characteristics, specific deformations in the body frame or assistant devices necessary for rehabilitation. That had enabled research team to form to the research base of case studies. The introduction of such case studies in the educational process, or scientific work, in all its complexity and social importance cannot be compared to anything else.

The first thing that was taken into account was the notion of how difficult it is for healthy young people to overcome a culturally

formed distance and remoteness that they developed towards people with disabilities. It's a challenging request for disabled people as well. This requires special psychological training. Positive communication skills and ability to overcome a syndrome of the "foreigner" (other) is essential. Every culture in the process of its historical development creates a vision of the healthy, beautiful body. Deviations from a predetermined standard are perceived as "abnormal" in the society. According to the existing mechanisms of social perception ("Halo Effect" by a factor of "Superiority"), there is always a chance to trigger a process of "stigmatization" of disabled people ("stigma" – conspicuous sign of pathology). I.e. the stigmatized individual with "atypical" external appearance is often associated with negative psychological qualities. Social "stigma" becomes an additional limiting factor to the life of the disabled individuals, causing them to obtain a passive social role [4].

The process of designing comfortable attire for people with disabilities starts with a series of lectures and practical training for both students and professional team provided by the crew of psychologists that gives them necessary communication skills that help making interactions with disabled people easy and less stressful. Both students and teachers research the experience of positive communication with disabled people both individually and within bigger groups.

It's very important to learn how to empathize, and to be attentive and tolerant to the needs of disabled people, but at the same time to sustain equal and positive relationships based upon respect and politeness. It does not come easy for people with little interpersonal experience of communication with disabled people; it takes time and mental effort and personal involvement into a process.

Second thing that is important during the process of designing products for people with disabilities is to solve different tasks in complexity of combining design and ergonomics. For future designers in most cases it's an individual research and creative work path that requires not only the suitable and tasteful aesthetic decisions, but a specific level of professional skills in pattern engineering. The aim is to provide assistance in organization of a more comfortable environment, more comfortable outfits exclusively personified and designed for those abnormalities that characterize the degree of disability of each researched individual. Womenswear and menswear designers can design bespoke outfits, which, taking into account individual features of each handicapped person, can help a person with disabilities to adapt more comfortably to the environment.

General recommendations and design projects are only possible for the groups of people sharing common signs of the same physical abnormalities, such as assistance in scoliosis correction, or creating comfortable costume details and accessories for wheelchair users.

In most cases, designing comfortable clothing and accessories for handicapped people requests a designer to follow up individual needs of each disabled individual. That means bespoke approach to design and technology of a garment. Unfortunately, nowadays, not all people with disabilities can get easy access to the designer's assistance. So, introducing the initiative from the students and professional team in that a project, in a sense of morality and empathy, is the sign of goodwill to the people who happened to have physical challenges.

Development of the projects that are related to the design of highly comfortable clothing specified for people with disabilities has a scientific and educational value at the same time. Analysis of various design aspects, search options and the selection of appropriate materials, forms and methods of their use is the proper way of researching that topic. The whole range of activities within the process of education – gives all of the agents of the educational process such valuable social and individual experience and shapes student's levels of tolerance, compassion, and awareness of other people's "impossibilities" and physical challenges.

When a designer is working on adaptive design project, all the conditions are important, as elements of the system are interconnected and can affect the final result of the creation of a new product. This involves the use of interdisciplinary knowledge and skills, aesthetic and scientific cooperation within the product design industry.

To form specific situational tasks and the definition of concepts, throughout the research process we identified core groups of individuals bearing shared physical or psychological abnormalities. It has shaped out several concepts of work provided below:

1. *The concept of garment's interaction with specific physical needs of disabled individual's body frame* (ways of putting on the garment, comfortable bindings, supporting design constructions, garments with ability to transform, special design constructions, specialized systems of allowances to allow the freedom of encirclement and movement).

2. *The concept of environmental protection* (clothing and accessories that increase comfort and protection from the aggressive environment for the handicapped individual).

3. *The concept of "caring" or a "body-friendly" technology* (seamless technology, soft-taped seams, lightweight materials).

4. *Concept of adding positive esthetics to the defects of the body* (body conscious decoration: tattoos, prosthetics, accessories, add-ons).

5. *The concept of "careful" colors* (the healing qualities of color, symbolic system of colors, chameleon colors).

Scientific and technological advances have increased the life expectancy of people with disabilities; nowadays they have a chance to be more mobile, reducing the level of their dependence on others. Internet technology and inclusive approach had increased the possibilities of communication and education for disabled people. These improvements cannot be ignored. The newly obtained ability to communicate, ability to work in teams, puts out a new issue that includes external and visual communication. There, in many ways of professional interactions with undergraduate students that has a positive impact. Young and active undergraduates, who are ready to face new challenges positively, who are open for productive interaction with people who are somehow different from the others, are the ones we focus our projects on. Design students can multi-

task: think, decide, and give a fresh perspective upon both creative journey and ergonomic comfort and convenience within the specified product development. They are also a moving force in creating a positive impact the life of people with physical challenges.

References

1. Rogers M.F., Ritzer G. (Eds.). *Multicultural Experiences, Multicultural Theories*. – New York: The McGraw-Hill Companies Inc., 1996.
2. Surber J.P. *Culture and Critique. An Introduction to the Critical Discourses of Cultural Studies*. – Boulder: Westview Press, 1998.
3. Feldstein D. *The Man in the Modern World: Opportunities For Development // Academic Gazette Institute for Adult Education*. – 2009. – *Man and Education* № 3 (20) – P. 10–16.
4. Shentseva N. *Descriptive Model of Socio-Psychological Rehabilitation of the "Young People with Disabilities" / N. Shentseva; A. Davydov // Scientific Dialogue*. – 2013. – № 4 (16): *Psychology. Pedagogy*. – P. 85–95.
5. Shaburova A. *Availability of the Urban Environment for People with Disabilities / A. Shaburova, L. Fahradsava // Questions of Territorial Development*. – 2014. – № 3 (13). – P. 1–7.
6. Dobrovolskaya T. *Social and Psychological Characteristics of People with Disabilities and Healthy Relationships / T. Dobrovolskaya, N. Shabalin // Sociological Studies*. – 1993. (electronic resource). – № 1.