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Multifunctional Space of Art-Relaxation in an Educational Institution: Design Concept Revision

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Abstract: The study focuses on the theoretical and practical aspects of multifunctional art-relaxation rooms in a learning environment. Such rooms become centers for solving several social problems, including overcoming stress not only among students but also among other vulnerable groups—combat veterans, retirees, and children. Implementing them in continuous practice becomes a relevant problem, especially with the consequences of the COVID-2019 pandemic. This study is based on a systematic approach and is interdisciplinary. The original methodology provides the analysis of different forms of relaxation space organizing in the historical context, and the formation of the main design standards for justifying the original concept of environment design. The practical result of the study is the multifunctional space of art-relaxation "Art-Tell-Iya," which operates permanently at the Lutsk National Technical University (Lutsk, Ukraine). The classes of art-relaxation and art therapy for restoring the mental state of ATO/JFO (Joint Forces Operation) veterans, classes for small groups of students, and activities of various artistic orientations are held in this space. The design space helps to improve psychological state and form new life strategies for a person through art. The authors present their own experience in art-relaxation space designing, which is based on main design standards, such as multifunctionality, aesthetics, and imagery, as well as visual and communicative interactions. From the standpoint of the systematic approach, the art-relaxation space is implemented as a model of world perception and as a powerful visual communicative system aimed at improving a person's psychological health. This study is an important step in the direction of solving the problem concerning the design of relaxation spaces in educational institutions for different visitors. It forms the base to conduct deeper research that is aimed at identifying connections between the design aspects and the efficiency indexes formation in the context of relaxation processes.

Keywords: Art-Relaxation Space, Design Thinking, Learning Environment, Multifunctionality, Visual Communicative System

Introduction

The intensive rhythm of people's lives causes constant stress and requires environmental changes for spaces used not only for work and studying, but also for rest, relaxation, and sanitation that can be done with the help of art-therapeutic methods. Nowadays, such an environment is becoming very promising for ill people, and is also used for the needs of healthy people, especially students. Children and teenagers are also prone to stress, suffer from fatigue, and need places to be alone and activities they can be involved in, such as meditation, prayers, and yoga. Relaxation rooms (University of Nebraska-Lincoln 2019), reflection rooms (Davidson College, n.d.) and sensory rooms (Cruse 2020) are suitable for such needs. They are not just rooms for rest in learning environments but fully equipped spaces with various opportunities for meditation and reflection (University of Kentucky, n.d.). Sometimes they contain health-improving zones, which are often equipped with multisensory and interactive systems as well (University of Michigan, n.d.). They help to create unique opportunities to increase learning and working ability as well as mental activity and relieve the stress and fatigue of students and teachers (Davidson College, n.d.). Furthermore, such rooms are successful

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because they encourage people to think about their beliefs and faith (Wachter 2018; The University of Kansas, n.d.; University of Michigan, n.d.; Strogoff 2007).

The important issue, which attracts attention, is the fact that relaxation and thought-provoking practice require a comfortable interior that would be visually appealing and create the right mood for relaxation and getting positive emotions. However, most art-therapeutic relaxation lessons and practices are held in ordinary classrooms without any special equipment (Cortina and Fazel 2015). People usually re-equip unused classrooms by installing new furniture and choosing calming colors for the wall paint to create a relaxing atmosphere within a room (Wachter 2018). It doesn't take much time for university staff to create such a room on a minimal budget (Wachter 2018). In addition, researchers pay almost no attention to such aspects as the design of these rooms and its impact on visitors. They mostly emphasize the specifics and the efficiency of the therapeutic process in their research studies (Adoni-Kroyanker et al. 2019).

As of now, the practice of designing relaxation spaces is concentrated around sites intended to treat ill people (Jakob and Collier 2017). There are multisensory rooms (Bozic 1997; Cameron et al. 2020; Altay 2021), art therapy rooms (Danieli et al. 2019; Adoni-Kroyanker et al. 2019), psychotherapeutic rooms (Punzi and Singer 2018; Lea 2021), and resource rooms (Meers 2013; Mykolaivska Pravda 2018) among them. The rooms are specially equipped for the needs of ill people or children with special needs, where they can be under the supervision of a physician or a specially educated teacher. The choice of treatment and therapy methods stipulates the name and the functional specifics of each environment, its equipment, and therapeutic materials. The design effect of such an environment can be different for the therapist and client. It is determined by different perceptions and needs in the use of particular space (Davies 2018). Nevertheless, the researchers give some recommendations about the wall color, light, furniture, and equipment construction, decoration, etc., without analyzing the design concepts of such rooms (DeAngelis 2017).

Only some of the researchers focus on the methods for design of interiors with a medical purpose, because they observe the tight connection between the effectiveness of the therapeutic process and aspects of room design (Danieli et al. 2019). For example, according to the studies by Danieli et al. (2019), the important design standards are the room location, the suitability of its equipment and furniture, and positive perception of the materials. Jakob and Collier (2017) point out the advantages of multisensory environments for people suffering from dementia and give the recommendations for their design by analyzing the best examples of organizing such rooms in their study. Lea (2021) presents an innovative study of therapeutic room design. Lea (2021) proves that a room, which is well-designed functionally and aesthetically, fosters the feelings of safety in visitors, increases willingness to communicate, reduces stress, and improves well-being. Such scientific studies are useful sources for design practice in general because they contain universal information about various design aspects, which are aimed at activating sensory feelings and are appropriate for creating an effective relaxation environment.

Among all the studies dedicated to the design of sensory environments in educational institutions, we highlight the publication called Cruse (2020), which emphasizes the importance of using sensory rooms, especially in the context of complex challenges caused by the global COVID-19 pandemic. It recommends using calming visual effects, items with touch pressure abilities, and comfortable furniture for relaxation in order to increase attentiveness and relieve students' anxiety and tension (Cruse 2020).

There is a very small number of such studies, related to the design practices in educational institutions. To overcome this issue, it is important to study the methods of organizing such relaxation environments and point out their main design criteria to provide the most comfortable conditions and the most effective results for relaxation. Due to this fact, this study is focused on the synthesis of the theory and practice for creating a relaxation environment in an education institution and on rethinking of its design concepts.

In this study, the issue of designing a space for psychological relief and meditation is connected with the aspect of multifunctionality, which allows for the implementation of such functions as training, treatment, and relaxation at the same time. The design of multifunctional spaces is based on their integration with the functions of the environment. Thus, the topic of creating a relaxation space is multifunctional. At the same time, relaxation rooms in educational institutions can be used for rehabilitation and socialization of other demographic groups, for example, retirees, children, and physically healthy military and combat veterans (Ministry of Veterans Affairs of Ukraine 2020). Unfortunately, such a necessity has now arisen in Ukraine, where, due to the invasion of Russia, the number of ATO/JFO veterans has reached more than 460,000 people (ArmiiaInform 2020). In such cases, art-relaxation and art therapy, which would be carried out in a location not associated with any medical institution, are effective tools. Spaces that are created in university campuses will have a more educational connotation than a therapeutic one, which can attract certain target groups. Consequently, the design of relaxation rooms in educational institutions is a strategic move that indicates the need for the renovation of the living environment and the expansion of its functional, conceptual, and aesthetic provisions. The design of such an interior can change the atmosphere due to the design concept development, the use of non-traditional forms of furniture and equipment, floor and wall coverings, implementation of visual effects, natural elements, and materials that evoke nature. The significant difference from other spaces where a person spends time helps to distract one from everyday stressful situations and relax.

It is important to point out that nowadays, the experience of creating a multifunctional art-relaxation space for higher education institutions is innovative and relevant because of societal challenges, a hectic rhythm of life, and a significant number of stressful situations. In this regard, the study focuses on the implementation of multisensory spaces. It is a great beginning for further studies. Moreover, in the future it will allow us to evaluate the influence of environmental design aspects on the art therapy process, its perception by the clients, the effectiveness of relaxation practices, etc. The results, which will provide the first achievements in the design practice, will become an essential contribution to subsequent quantitative studies.

Historical Background: The Forms of Relaxation Space Organizing

Throughout the course of societal development and the formation of social relationships, different ways of building connections between people and relaxation environments have arisen. We distinguish the following forms of relaxation space organization: art therapy room, multisensory room, reflection room, relaxation room, and resource room. Their analysis is important for the design practice of contemporary relaxation spaces.

Art Therapy Room

The earliest form of organizing this environment—art therapy departments—is related to the long-term treatment of mentally ill people in large mental hospitals in the 1930s (Case and Dalley 2014, chap. 3). These art therapy departments were presented by the art studio-style space, where patients conducted art experiments and created paintings (Case and Dalley 2014, chap. 3).

At the end of the 1990s, a different type of art-therapeutic room was formed after the mass closure of large psychiatric hospitals. From that time, the concept of such environmental perception changed because most art-therapeutic rooms became multi-purpose, and hence different specialists and doctors could use them (Case and Dalley 2014, chap. 3). Now therapists consider these kinds of rooms as symbolic spaces, where a patient communicates with a therapist, as a container with the required equipment, especially tables and art materials (Case and Dalley 2014, chap. 3).

Modern art therapy rooms are usually classrooms in schools for students with emotional and behavioral issues (Cortina and Fazel 2015). From a design standpoint, those rooms have study zones, sofas, and dining zones. Usually there is a big table, stuffed with art materials, which presents the culmination of formal education and personal development (Adoni-Kroyanker et al. 2019). Today art therapy and art-relaxation rooms are used for people of different ages and at different stages of intellectual or physical development. The differentiation of functional zones provides a comfortable environment for art classes that creates positive emotions and helps people to relax.

Multisensory Room

The search for methods and equipment for sensory perception stimulation at the end of the twentieth century led to the creation of the design concept of a sensory relaxation room. This idea originated from American psychologists Cleland and Clark, who created sensory cafeterias in 1966 for people with cognitive impairment (Snoezelen Multi-Sensory Environments, n.d.). In the 1970s, the first multisensory rooms, which were called Snoezelen rooms, arose in the Netherlands due to psychologists Jan Hulsegge and Ad Verheul (Snoezelen Multi-Sensory Environments, n.d.). From then on, Snoezelen became the conceptual name for such sensory rooms and the brand for special equipment for such zones (Hidden Angel Foundation, n.d.). Lighting, interactive, and sensory equipment, equipment for development and games, aromatherapy, audio, and video are used to create an exclusive environment to relieve stress and rehabilitate people with psychoneurological problems. Because of the increasing diversification of methods of sensory impact, multisensory rooms and multisensory environments appeared. Nowadays they are used not only for ill people but also in kindergartens, schools, enterprises, etc. (Altay 2021).

Reflection Room and Relaxation Room

At the end of the twentieth century, relaxation and reflection environments for people in learning environments became widespread. Usually, these rooms are light, with big windows, wooden floors, and pillows for meditation (Davidson College, n.d.). The important factor, which distinctly mark their design features, is the interpretation and redefinition of self-actualization. The process of cultural integration of western and eastern traditions of personality formation in the learning environment led to the rethinking of the values of eastern spirituality which are aimed at promoting wellness through yoga practice, meditation, and programs for stress control (Jarvis 2013).

It is important to redefine the role of the relaxation and reflection environment design to distinguish it from the organization of art therapy and multisensory rooms. One of the most widespread design concepts is the Maze which directs visitors' movement through the internal (Strogoff 2007) or natural environment (Davidson College, n.d.). It is an archetype that we can find in different religions, a metaphor for the sacred journey, a spiritual practice, and a tool for meditation and thinking (Strogoff 2007). Modern search for the essence of being draws attention to art, which becomes the basis for the design of the relaxation environment (Tàpies, n.d.).

The new type of space for meditation and thinking is formed on the basis of the connection between the reflection room and zones for health improvement; so sensory environments are created (Wachter 2018). Relaxation rooms are relaxing sanative zones that are filled with equipment for physical relaxation and body stimulation. There are massage chairs, equipment for meditation, sensory equipment, and biofeedback technology that helps to facilitate relaxation strategies and find ways to relieve stress (University of Michigan, n.d.).

Resource Room

One more form of learning space organization is the Resource room. In European countries and the USA, it is recognized as a separate classroom for extracurricular activities outside the main classroom (Meers 2013). In Ukraine, such an environment is a bit different, because it combines elements of art-therapeutic and multisensory spaces and is used for children with disabilities. Usually, these are studying rooms without distracting elements and mirrors, with relaxing light and pleasant music. In addition, such relaxation rooms are equipped with comfortable furniture, mats, and have sufficient sound insulation for visitors to feel relaxed (Mykolaivska Pravda 2018).

Such an overview of different types of relaxation rooms is useful for the design of a special environment, where the main focus is not on therapy, but on the quality of sensory experience and the overall wellness of visitors and the relief of stress in all possible ways, such as mental, intellectual, and physical. Each of the analyzed environments differs in the specific design features that can become multipurpose instruments for organizing multifunctional relaxation spaces.

Materials, Design Methods, and Processes

The logic of this study is based on the theoretical analysis of types of relaxation spaces and is implemented in a real-world project. Therefore, the authorial methodology of the study includes two interconnected parts. It has the basis of the systematic approach and is of an interdisciplinary nature.

The first part of this study is a theoretical analysis of the historical basis of the formation of these environments. Thirty-two samples of the interior from the USA, France, Sweden, Germany, the Netherlands, the United Kingdom, Spain, and Ukraine were chosen for the study. The five groups were formed based on the forms of relaxation space organization, as follows: art therapy room ($N = 9$), resource room ($N = 3$), multisensory room ($N = 10$), reflection room ($N = 6$), relaxation room ($N = 4$). All samples are presented on the internet as interior photos with descriptions on the websites of educational institutions or in scientific articles. Despite the low number of samples, each sample researched has unique practical experience that can be useful for forming new methods of design.

In the study, the most defining project characteristics, which were historically formed for each type of relaxation environment, were analyzed (Figure 1). The features pointed out in the study, especially the functional zoning, furniture and equipment, art practice, sensory stimulations, and conceptual thinking, can be the instruments for the analysis of relaxation environment designs in general. In order to create new relaxation environments in an educational institution, it is expedient to form the design standards, which are integral indicators aimed at the coordination of selected conceptual, functional, and aesthetic features.

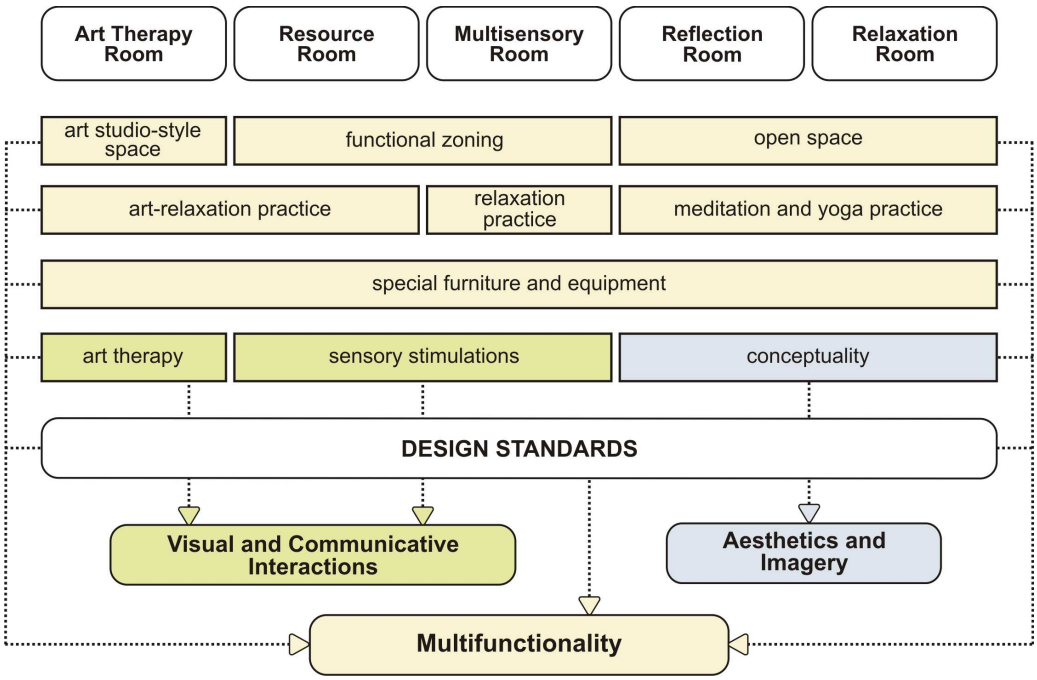

Figure 1: The Analysis of the Project Characteristics of Relaxation Rooms and the Design Standards Formation
Source: Skliarenko

The implementation of the multifunctionality standard is important for creating a flexible environment, which can be adjusted to various processes. It is implemented by the integration of functional zoning, special furniture and equipment, as well as the artistic practice. The aesthetic and imagery standard reveals the design content by synthesizing the conceptual understanding of the environment and the aesthetic experience of the artistic practice. The important design standard in project practice is the quality of visual and communicative interactions. They provide the activation of sensory perception of the environment and use interactive equipment, visual, audio, tactile effects, materials, surfaces, etc. These three design standards, which were pointed out in the study, are the main aspects for further designing.

The second part of this exploratory case study has a practical educational character and is the conventional design process. This allows design research to go beyond academic papers and move toward the implementation of practical tasks (Tonkinwise 2014). The design process of the multifunctional relaxation environment is divided into five stages according to the selected design standards. It is shown in Figure 2.

The Design Concept

The basis of the design concept is an assortment of ideas that are perceived by the designer as artistic images with a high level of abstraction. The design process provides the idea of development on the associative level and its correlation with the selected design standards. The creation of the multifunctional and aesthetically expressive relaxation room is based on the harmonization of the artistic image and problematic issues of the local level, namely, localization of the environment, its dimensions, the target audience, and the spectrum of functions performed. Due to this fact, the relaxation environment is evaluated as the model of the world perception with unique visual and communicative interactions.

Visualization of the Space

At the second stage, there is a correlation of the existing interior with the idea; the concept gradually acquires a visual and material embodiment and becomes a symbol. This part of the study requires the involvement of relevant interdisciplinary aspects related to the relationship between a person and the space. On the basis of functional and ergonomic analysis we carry out interior planning and zoning, choosing furniture and equipment that ensure the process of relaxation according to the concept. Available space, where we create the relaxation space, is adjusted and adapted to the concept beginning with functional zoning.

Visualization of the Space Atmosphere

The next stage is related to the visual interpretation of the interior details, which are the base for forming visual and communicative interactions. It serves to determine the parameters that affect the formulation of the psychological atmosphere of the relaxation environment. Visualization of the space atmosphere occurs through the choice of wall coloring, dynamic colored light, audio- and/or video systems with relaxation records, etc. The choice of these specific means of space visualization is done by a designer on the basis of consultations with a psychologist and art therapist. This approach enables us to exclude any harmful factors and creates a relaxing atmosphere.

Choosing the Materials and Equipment

The designer's work at the fourth stage is related to the choice of materials and equipment that conform to the concept of space. At this stage, the developed methodology involves students in the creation of the design product, including wall painting, graphics, and logo formulation. Its effectiveness reveals the opportunities in the process of work and not just in contemplating the outcome (Parnell, Cave, and Torrington 2008). Participation in creating a relaxation room is an example of allowing graduates to successfully cope with the task of design for social changes in the future (Souleles 2017).

The Evaluation of the Results of the Design Process

It is the finishing stage of the design process. It helps to visually evaluate the design parameters of the created interior and the value of the project in general. Furthermore, the process of results evaluation recursively returns the developers to the evaluation of the quality of the initially determined criteria for the design of the relaxation environment. Therefore, the project evaluation makes it possible to summarize the results of practical implementation of the project. The space acquires materiality and its aesthetics, which are based on simulated positions of a person's world view. To sum up, a chain of transformation, Idea—Symbol—Meaning, is used to create a relaxation space. This method makes it possible to form a material object based on abstract concepts, which gradually loses the level of abstraction and acquires materiality. It is necessary to involve methods of interdisciplinary practices that enable us to revise the study of design as a universal practice in order to implement this process (Tonkinwise 2014).

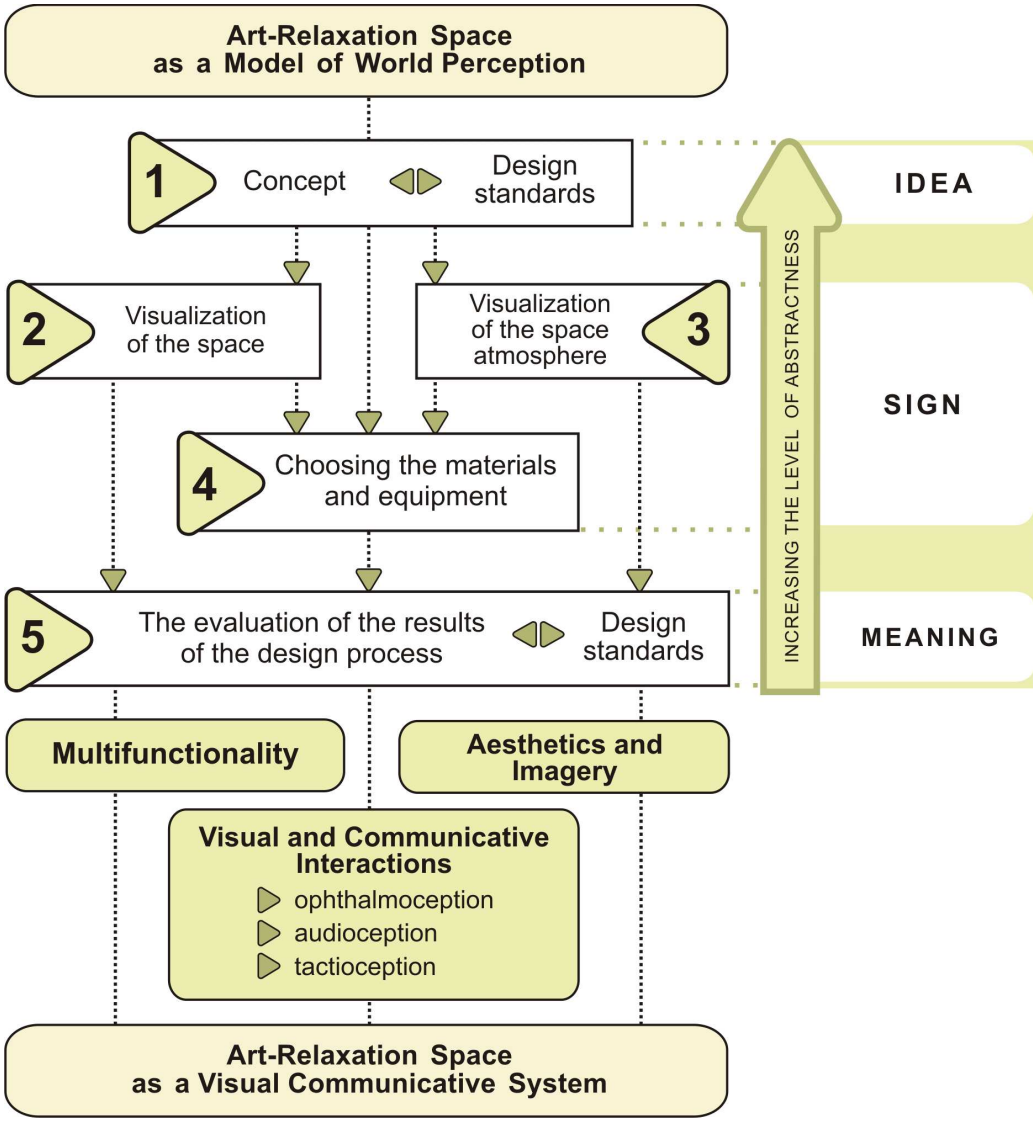

Figure 2: Methodology of the Design Process of Art-Relaxation Space
Source: Skliarenko

At the final stage of the project process there is a real possibility to evaluate the systematic organization of the created relaxation environment. Based on the results, it will be possible to conduct a large-scale scientific study to determine the connection of the design interior features and the efficiency of relaxation practices conducted for different groups of visitors who want to reduce stress and get a positive personalized sensory experience. Nowadays, project developers can only visually observe visitors' behavior and emotions to evaluate the effect of the created interior on their perceptions. Analysis of visitors' feedback and their wishes, which can be evaluated by a psychologist, will enable designers to form future design recommendations for relaxation spaces. It will become a first step toward proving that the physical environment influences visitors' inner world and the results of the art therapy and relaxation process.

Design Outcomes

In this study, the main design standards are pointed out on the basis of evaluating the design features of relaxation rooms, which already exist all over the world. They were implemented in our own project of the multifunctional art-relaxation environment that was created at Lutsk National Technical University in Ukraine.

Design Standards

The environment design is based on the following standards of forming a successful and efficient concept for the art-relaxation rooms.

Multifunctionality

The issue of creating a conceptual relaxation space is related to the need to combine multiple functions in one room, such as relaxing, studying, playing, resting, and healing. It is important to combine all zones in the environment properly in order to have a possibility to rest and to relieve fatigue and stress. The important factor of design at this stage is the possibility of free movement among different zones as well as ergonomic change of body position: from sitting up while studying to lying down during relaxation. Individual preferences and ergonomic needs of visitors of different categories should be taken into account while choosing equipment and furniture for the wide variety of activities.

Aesthetics and Imagery

The parameter of psychological comfort is associated with a creating calm atmosphere and a quiet space that promotes a state of rest, reduces anxiety, and relieves stress. The creation of the space content, which is perceived as an artistic image, comes to the foreground. It is based on the integration of nature, space, and human health. The content helps to place project accents correctly, particularly by the implementation of the natural elements and tactile sensation diversification by using eco-materials for the equipment and decoration elements.

The atmosphere of the relaxation environment is formed by the aesthetic perception of the art works. There are decorative interior inserts, works of art, especially painting and graphics, or art works created by the visitors themselves. The experience of the art works used in the design of reflection rooms is necessary to encourage visitors to think and meditate (Tàpies, n.d.). In addition, we consider art-therapeutic practices as forms of self-knowledge and self-awareness (Case and Dalley 2014, chap. 3). The results of art therapy and art-relaxation practice presented as visitors' art works can become the means of organizing different spatial zones. Visual acquaintance with them will help different types of visitors to adapt, and motivate them to join different types of sensory activities.

Visual and Communicative Interactions

A person perceives the environment with all senses. Moreover, people's experience is dynamic, because it changes every time according to a person's state, their activities, desires, etc. (Altay 2021). That is why the practice of relaxation space design should take into account the dynamic interaction of different types of visitors, by evaluating their perception. These are essential positions that influence three main channels of human perception of the world: ophthalmoception, audioception, and tactioception, through immersive interaction (Fischer and Hebbeler 2017). The formation of the concept of a relaxation room relates to the need to find different ways to work with a person by using sensory analysis of materials and technologies

(Passaro et al. 2013). It leads to the ergonomically competent creation of light, sound, and tactile effects. At the same time, it is important to maintain a balance between sensorial equipment with relaxing effects and an environment filled with unnecessary distracting accessories (Jakob and Collier 2017).

The relaxation environment should encourage visitors to engage. That is why all types of sensory influences, particularly tactile surfaces, light, and temperature should make it possible for visitors to explore the environment at their own pace. In addition, it is essential for visitors to be able to choose their sitting place by themselves. Visual and communicative interactions are enhanced when all the elements are aesthetically pleasing.

Characteristics of the Relaxation Space "Art-Tell-Iya"

Based on the described methodology and design standards, a permanent multifunctional space of art-relaxation "Art-Tell-Iya" (Art-Tell-iya 2020) was first created at the Ukrainian higher educational institution Lutsk National Technical University (Figure 3). The name "Art-Tell-Iya" arose from a combination of the words "Art," "Tell," and "Iya" (transliteration of the Cyrillic letter "Я" from the Ukrainian language meaning "I" as in self). This means that the image of a person is communicated through the language of art. This idea is embodied in the space (Skliarenko and Didukh 2021) and the logo "Art-Tell-Iya" (Didukh and Skliarenko 2021), for which copyright registration certificates have been received.

The Art-Tell-Iya space is located on the third floor of the university building and is isolated from any street noise and crowds of people. It is formed from two university auditoriums connected into a single complex with a total area of 95.4 m². Structurally the environment consists of an activation and a relaxation zone. Each of them has appropriate equipment and covers several functions. The implementation of the multifunctional space is based on a well-thought-out concept that has led to the choice of planning, functions, eco-materials, lighting, furniture, and coatings (Zahorska 2020).

Art-relaxation and art therapy classes are currently held there to restore the psychological state of ATO/JFO veterans (Art-Tell-iya 2020). The created interior is both a center of art experiments and an exposition space, where different events are held (Art-Tell-iya 2020). At any other time, this space is used for classes for small groups of students, which promote self-development and harmonization of their psychological state and increase the level of perception and assimilation of information. Art works produced in the art therapy classes are used to form an exhibition area of the space. The extracurricular time can be used for charitable or commercial projects, corporate events, and other activities. Various activities are shown in the Figure 4. This contributes to the formation of positive well-being and psychological health of people of different ages and is aimed at raising the level of aesthetic and psychological culture of individuals or groups of people through artistic activity.

The space is used every day from 8 a.m. to 8 p.m. during university working days; the support staff cleans and takes care of the equipment. Visits to the space are scheduled; there are classes for veterans, elderly people, and kids. Students and teachers can visit it freely. According to our observations, students most actively visit it during afternoon hours, when everyone is tired of studying. This environment is popular among students and teachers that have free hours between their lessons.

Discussion

The valuable part of the study is the evaluation of the created space according to the selected criteria. Each of them cannot be considered separately; they must be considered holistically in order to produce positive results.

Figure 3: Design of the Multifunctional Space for the Art-Relaxation "Art-Tell-Iya"
Source: Skliarenko

Multifunctionality in Space Design

The interior involves the creation of a number of functional areas that cover a wide range of uses: relaxational, communicational, socio-psychological, educational, art-therapeutic, etc. Their interaction is based on principles of art therapy and art-relaxation, which use art production with the purpose of self-actualization and self-knowledge. Each zone and its functions are considered in more detail in Figure 3.

Ordinarily, a person first encounters the space in the entrance area, which integrates the communication area and the waiting area. Here, there are benches where visitors can rest or socialize while they are waiting. The Entrance Area contains communication materials with information which prepares visitors to perceive the new space. There are two doors which lead to the next zone which is the activity zone.

The activity zone allows the implementation of educational and entertaining functions, such as art therapy classes and creative educational processes. This area is designed for simultaneous art therapy classes for up to sixteen people. However, during conferences, presentations, or other mass events, more visitors (up to thirty people) can be accommodated. The activity zone integrates several zones with appropriate equipment: the group work area, the individual creativity area, the relaxation area, the exhibition area, and the storage area.

Modular furniture located in the group work area plays an important role in the multifunctional space. Work desks have a trapezoidal shape, which makes it possible to rearrange them in various ways—an elongated rectangular table, an S-shaped table, or separate groups of hexagonal tables, etc. where visitors can sit down from different sides of the tables. It is possible to create separate spaces for working in pairs or place them one by one, as in a traditional classroom. There can be an enormous number of such variants. The relaxation space can take on a new look each time, which will be interesting for visitors. Modular furniture is considered as a constructor of functional blocks, the elements of which can be combined into an integral structure according to the concept requirements, visitors' requests, or art therapy needs. The individual creativity area has two tables that are located in the gaps between the windows. Realization of educational and entertainment functions can also take place on the windowsills that are equipped with mini easels.

There is an opportunity to rest and be distracted from studying in the activity zone. The relaxation area serves this purpose. There is a place for relaxing and resting on a grass carpet and beanbag chairs across the entrance door under the logo "Art-Tell-Iya." There are also rows of benches along the wall for resting and storing work materials. In this case, the complex of benches, cabinets, and closed shelves serves as the storage area for keeping drawing tools and visitors' artworks. Different use of furniture and equipment fosters the multifunctionality of the general space and the working area. The exhibition area plays an important role in this zone. It occupies two walls for exhibitions.

The relaxation area can be used to teach classes on mats. It is the most comfortable area in the art-relaxation space, which helps visitors to relieve fatigue and restore their capacity to work. This area begins right after passing through the doorway. In this area, it is possible to relax and distract yourself from everyday worries. The relaxation function aims to achieve psychological relief for visitors near the water bubble column. The visitors are free to place comfortable mats with pillows for rest anywhere in the relaxation area. They can alternate sitting up during the art therapy training with lying down during relaxation. There are sixteen mats for classes; however, it is more comfortable to conduct classes in groups of eight to ten people. Mats can be used for relaxation exercises and yoga or corrective gymnastics, which allows this space to be used for different types of visitors. Such classes take place in groups under the supervision of a psychologist or an art therapist. A relaxing atmosphere in this zone is achieved by using specific design and equipment, that is, dynamic color modes of the water

bubble column, light and color design of the interior, and the use of a projector with audio-visual support.

The individual consultation area is a separate room for working with a psychologist. Its entrance is located by the relaxation zone near the coffee break and storage area. Its area is 10.4 m² which enables occupation by one to two people; however, the consultations are usually individual. This room is extremely comfortable. The psychologist's desk, armchairs, and a couch create a comfortable atmosphere and help one to relax, calm down, and communicate openly during individual consultations.

The coffee break area is located by the psychologist's room. There is a small cupboard, where there is some food and equipment for preparing beverages. This area encourages communication but also allows one to spend some time alone on beanbag chairs in the depths of the room. The storage area is a wardrobe set into the wall, used to store visitors' outerwear, mats, and pillows.

All these functions are realized during work with people in the created space, so visitors who are relaxing can visualize their problems on paper or other material by means of design and art. Therefore, this space can be recognized as a multifunctional area. The basis of designing the multifunctional relaxation space is the integration of zones into a comfortable and harmonious space for art therapy classes and relaxation. Due to materials and equipment, the final materialization of the idea takes place, which brings a person closer to understanding the essence of the space through the usual human senses—sight, hearing, touch. This contributes to the positive well-being and better psychological health of people.

Art-Relaxation Space as a Model of World Perception

Today's life is fast and full of stress and negative emotions. A person escaping from an ordinary routine associates nature with peace. Nature contains an extremely large number of characteristics which are necessary for human recovery and allows a person to decrease stress effectively in the broader context of the interaction between the person and the space (Kaplan 1995). The soothing rhythms of nature allow us to avoid fragmentation and create a reasonably stable permanent space that generates meaning making (Punzi and Singer 2018). That is why it was decided to base the concept of the space on the elements of the universe. A modern person has an opportunity to rethink Aristotle's theory of the four elements—Fire, Water, Earth, and Air, which helps to create a space close to nature (Benson 2000, chap. 1). Therefore, we correlate the specific features of each element with material objects that can be placed in an art-relaxation space to achieve the effect of stress relief and rest. We interpret the image and symbolic meaning of elements at the associative level. The concept of relaxation space development reflects the indissoluble unity of psychological and physical essence, which is embodied through a sense of harmony with nature.

In the entrance area of the corridor, the visitor finds himself in front of a door with a picture of the night sky with the stars, moon, and clouds (Zahorska 2020). These are the first images that reveal the idea of the universe. Opening the door is like opening the human soul. A person is considered as a mini universe, the sides of which will be revealed in the space created by art tools.

The image of the Earth element is depicted as a symbol of birth and growth through green color that symbolizes plants, trees, and fields. For this purpose, plants and a green carpet of artificial grass are used in the interior. At the same time, it is the ochre and brown shades that represent the texture of the land, sand, and stone. The neutral white color of the walls symbolizes the purity of nature and air, and the green color provides the opportunity to get closer to nature. The doorway is open, which means a free transition from art therapy to relaxation, like free-flowing substances in the universe. Figuratively greens and earth are one unit; however, the earth textures remain in the form of sand and brick in the relaxation area. The Earth element reveals itself in ochre-brown colors on structural elements, furniture, and

equipment in this area. In this case, the emphasis is shifted to the tactile sensations of surfaces covered with sand, bricks, and artificial green grass in order to strengthen the relaxation processes.

The element of Fire is presented in the relaxation zone. It stands for energy and magic power, and is the element of change that destroys bad habits or illnesses and symbolizes cleansing. Fire as a symbol of warmth and comfort is embodied in the picture of a fireplace on a brick wall in the interior. The fire imitation is presented through a visual fire image and an electric fire, around which people can sit and relax. This mini heater creates a comfortable domestic atmosphere due to the imitation of a real log fire burning in a fireplace.

The image of Water, which is inseparable from Air, is shown most brightly. This synthesis is a symbol of constant movement, a powerful dynamic substance embodied in a water bubble column and an imitation of the sea in a wall painting. The water bubble column is the main accent of the art-relaxation space. It is a cylindrical form made of waterproof acrylic on a stand. It has an LED backlight, works on electricity, and does not require connection to a water supply. Technically the column is powered by a noiseless compressor in the column platform that provides the formation of air bubbles. The water bubble column gives off soft colored light that depends on the selected mode. Soft light acts as specific color therapy, giving a feeling of calmness and comfort.

The color of the sea in the wall painting gradually spreads into the depth of the room and acquires a deep turquoise-green hue on the wall in the coffee break area. The presence of ochre colors and image of sand and air symbolize mutual penetration of elements. In this way, we enable immersion into a person's spiritual world.

According to the concept of the interaction of the four elements, the space of art-relaxation is perceived as a perpetual and safe circle, resembling a map of the universe—a mandala. Art therapy sessions with the use of mandalas for coloring complement the created aesthetic concept. In this way, through the settlement of the space from an artistic point of view, a model of human perception of the world is formed. As a result, the space can impact humans as an ecological intervention, complementing the visual and art-therapeutic effects on stress.

Art-Relaxation Space as a Visual Communicative System

The material embodiment of the concept of the four elements is formed as a visualization of human feelings and emotions, characterized by associative similarity to natural elements. Researchers today express significant interest in the study of communicative qualities of designed objects. Sensory properties of materials determine the interaction between them and the user through sensations (Passaro et al. 2013). Ophthalmoception, audioception, and tactioception play an important role in the formation of communicative features of a design object (Fischer and Hebbeler 2017). These parameters create an atmosphere that enables a person to perceive themselves as a part of nature and the universe and interact with these. They also help in the visualization of a deep multisensory experience through the formation of communicative space (Figure 4).

Human visual communication with the space occurs primarily through the perception of color, which brings us back to the concept of the four elements. The activation part of the interior combines white and green in the artificial cover. The use of calm colors of mid-wave range (e.g., green, ochre, blue, and their shades) that do not cause excitation or irritation influences relaxed communication. In the relaxation room, blue and ochre colors are combined as an imitation of the elements of Water and Earth. The wall painting conveys tenderness of the sea, created by light shades of blue, purple, pink, and ochre. It continues even in the depth of the space, hiding the door to the psychologist's room. This method of decorative disguise emphasizes the designers' desire not to focus on the presence of a specialist from the outside. There is a calm neutral interior with light gray walls behind the door instead of the colorful

relaxing space. Communication moves to the individual level "client—psychologist" in the psychologist's room.

The calmness is disturbed by a dynamic water bubble column. Its light is a kind of color therapy, and contemplation is meditative (Cruse 2020). The communicative role of a visual image of the sea is increased by an audio-visual projector, which is turned on during the stay of visitors. Its reflection of the sun or water accompanied by the sounds of nature complements the atmosphere of posed relaxation. Visitors can choose the sound of nature and change it in order to create a pleasant atmosphere.

Figure 4: Various Activities in the Multifunctional Space for the Art-Relaxation "Art-Tell-Iya"
Source: Skliarenko

Another type of interaction is communication that is built on the sensations of heat and cold. In contrast to the active Water element, a picture of a fireplace is placed in the space, which radiates heat creating home comfort. According to our observations, nearly all our visitors are impressed by the water bubble column. Therefore, a good number of visitors sit near it, while staying in the environment, to observe water bubbles dynamics. Subsequently, they move closer to the faux fireplace. The duration of independent stay in the environment is not dictated by university staff. Furthermore, it is worth noting the specific attitude of different types of visitors to the mats. Visitors who are older than 35 to 40 years at first feel a bit uncomfortable when invited to lie on the mats, and then surprised, but soon feel relaxed. In contrast, the behavior of 17 to 25 years old students is completely different. They are enthusiastic about staying on the mats and sitting near the water bubble column, so they ask teachers to conduct lessons which do not require sitting at the desks and doing exercises.

To enhance the processes of relaxation, attention is shifted to tactile sensations. Communication with the space is based on touching materials and surfaces, which gives an emotional characteristic to the objects of the space (Bertheaux et al. 2020). The hands in this case act as a tool of tactile perception (Elbrecht and Antcliff 2014). An innovative concept of designing the activation part has become a new technological solution—the use of artificial grass as a covering not for the floor but for walls and doors. In the relaxation part, sand coverings on the walls and doors represent the earth's elements. Therefore, the potential of touch introduces a new area of communicative and interpretive resources that function as a source of information (Hope, Jones, and Zuo 2013; Christidou and Pierroux 2019). According to our observation, visitors certainly have an increased interest in the grassy and sandy textured surface on the walls, doors, and table surfaces. Nearly each visitor comes to touch them; some of them want to get to feel them over and over again during the relaxation process. During their tactile experience we observe the improvement of visitors' emotional state. Their interaction with the created materials and textures depends on their perception of the material based on its sensory properties, such as texture, color, smell, and taste (Hope, Jones, and Zuo 2013).

The eco-friendly materials used to create decoration and different natural objects, and the use of plants deepen the formation processes of visual and sensory experience. As a result, a person creates a holistic picture of a harmonious world in the art-relaxation space. "Art-Tell-Iya" is perceived as an arena of emotional relationships and a special form of communication. Thus, the art-relaxation space is an atmosphere that initiates communication, creates a stage, and immerses one in the process of art treatment. The space becomes a dynamic visual communicative system created by different forms of design.

Conclusion

The study presents the theoretical and practical results of creating a comfortable permanent multifunctional space for art-relaxation in a higher education institution for many types of visitors. The created space can contribute to social change that will help to make life easier for different social groups (Souleles 2017). The art-relaxation environment creation is based on the methodology of implementing the main design criteria, such as multifunctionality, aesthetics, and imagery as well as visual and communicative features. The aesthetic and eco-friendly concept of the combination of four natural elements—Water, Air, Earth, and Fire is the base of the design development. It enables the creation of a space that is as close to nature in tactile, visual, and sound characteristics as possible.

Modern design trends that are multifunctional, aesthetic, ergonomic, and imaginative are present in the art-relaxation space in order to create a comfortable place for different social categories of visitors. An important aspect is the presence of two flowing zones—relaxation and activation, which allows them to be adapted for different activities. A desire to combine activity and rest is manifested in the following forms. First, it is the design of separate zones with the

integrated functions that gives versatility to the art-relaxation space. Second, it is the choice of eco-friendly materials and covering that imitates them. Third, it is visual and communicative accents that help people focus on the naturalness of surroundings, namely fresh flowers, water, and fire objects, etc.

It is a space with a unique atmosphere to calm down, relax, rest emotionally, create positive energy, and feel freedom in art. The idea intertwined with its material visualization allows one to perceive the relaxation space as the model of the universe and the visual communicative system.

The psychological coexistence of visual, sound, tactile, taste, and olfactory sensations integrated in the design object structure causes a unique phenomenon of perception named the synesthesia phenomenon (from Greek synacthesis, meaning simultaneous sensation). It enriches the visual language and influences a person's emotional state through sensory channels. Sensory elements complement each other by achieving a synergistic effect during the process of training, treatment, and relaxation. Such relaxation spaces can be seen as a work of art and a stage for creating an experience (Whitaker 2017).

The inclusion of all aspects of culture in design practice has become important in the project process (Asino, Giacumo, and Chen 2017). In this context, the project integrates a culture of relationships, a culture of perception, an eco-culture, and a culture of thinking, which has become an important part of the relaxation space design. It meets the students' needs and reflects the principles of universal design for learning (Cruse 2020).

Consequently, the design of a relaxation space depends on the chosen concept, that includes established design standards and designer's imagination. Each educational institution can create a similar project based on the proposed authorial methodology of this study.

Within the study it is too early to talk about the effectiveness of this environment. The design efficiency of the created environment can be different for visitors and specialists that conduct therapeutic classes (Davies 2018). The initial observation of visitors of different age groups has outlined some positive and contradictory aspects of the project and also some limitations of the project. Among the limitations the following ones are important:

- No more than sixteen people can be inside the room, except for mass events (up to thirty people);
- Older people have problems with adjusting while using rugs for relaxation in a lying position;
- It is impossible to provide a full-fledged therapeutic consultation for all visitors, due to the fact that the psychologist works on a volunteer basis;
- Visiting hours and their duration are limited for each category of visitors.

It is important to take the above observations into account during the design process.

The experience of conducting art-therapeutic classes for ATO/JFO veterans with experts' involvement and observation of students and teachers, who use the environment independently, allow for further suggestions on the application in the curriculum. Since this multifunctional art-relaxation space is a part of a large learning environment, it is mostly visited by students, teachers, and other university workers. That is why, first of all, we should ensure accessibility to the room by creating and placing on the internet its working hours schedule with automatic updates. Moreover, it is advisable to conduct some educational classes for students in the relaxation environment. In addition, this relaxation environment can be rented for extracurricular activities, yoga, and meditation lessons with the purpose of overcoming the financial problems of maintaining it.

We hope that this study is a useful base for conducting large quantitative studies which are aimed at identifying connections between environmental design parameters and the effectiveness of relaxation processes for different types of visitors. Art-relaxation spaces are relevant not only for Ukraine but also for the world community. The technique of designing this space can be used as a source of information for designing similar types of public interiors in

order to build an effective art-relaxation multifunctional space and use it as a center for solving different social problems. This designed object can also be an interesting example of implementing image in order to create multifunctional spaces. We believe that this exploratory case study will become a useful informational source in view of the rapid growth and development of the wellness industry.

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