

Training Centers and Their Development Through Contemporary Design Vocational Trends

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Abstract:

The technological developments had come very fast and societies needed to learn new skills and sciences such as vocational crafts through training which is a vital element of this age. The role of the vocational centers encompassed in development and renaissance of the society through raising the efficiency of advanced training programs, so that, they reflected in the role of architects and interior designers. In addition, they were essential in raising and enhancing vocational training centers through the development of design architecture and interior spaces according to specific criteria. The research enhanced the role of vocational training centers, creativity spaces, arts, crafts and sciences centers in spreading knowledge, besides, it created space for learning and understanding between different peoples and cultures. **The problem of research** was the rigidity, monotony and neglect of the vocational and technical training centers in the local communities and the poor position of these centers despite their dynamic role in the development of the society. On the other side, most of vocational training focused on the content of the advanced training programs only without interest in architecture, interior design and how to create space of creativity. Furthermore, these problems had caused of weak interior space in all elements, training spaces, services and others which did not suitable such a type of these spaces because it required creativity, innovation and specific standards in interior design. Accordingly, the designers needed to create interactive spaces involved students and wonderful experiences for all users with a good scientific content. Besides, the vocational crafts begun to spread through the interrelationship of architects, designers and others disciplines of heritage conservation in vocational centers design which included these trades and crafts with using modern technological development in the trends of contemporary architecture. Hence, the awareness of the importance of handicrafts was essential value which encouraged designers to revive these professions crafts through creating innovative vocational centers. **The objective of the research** was to provide a comprehensive study of the futuristic design of vocational training centers and the strategy of training spaces which suitable for various activities within interactive space, and many advanced digital techniques. Meanwhile, it was raised the efficiency of the vocational training centers by developing interior architecture of these centers through modern trends in design, so that, it overcame the design problems affected by these centers. These would contribute to the development of vocational centers, as well as, the traditional contemporary design through theory, research, experience design and different disciplines. **Results:**, the research enhanced the modern theories and their impact on workshops spaces of vocational training, both aesthetically and functionally, and analysed the development methods of design process which harmonized to the future vision of contemporary trends in interior design. Finally, these creative spaces represented an effective role in the renaissance of the nation, which contributed to the elimination of many problems and issues. The research has also, highlighted the development of vocational training centers through design trends, activities, services, interior functions and other visions of the space, as well as, it enhanced the concepts of vocational training spaces development according to contemporary design standards which contributed to raise the efficiency of training activities in all aspects. This influenced in higher efficiency of students and trainee's performance. In addition, the study analysed the importance of exploring a future vision for these centers and their effective role in enriching society through specific structure and methodologies for vocational training centers. In conclusion, the research concluded a set of design criteria and strategies in evolution of vocational training centers design which pushed students to creativity and societies to develop, innovate and promote the economy.

Keywords:

Vocational training centers, Arts and Crafts centers, Originality and Spirit of place, Contemporary design trends, Digital revolution, Creative and innovative Spaces, Experiences.

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1.Introduction

The society moved from agriculture to industry or from nomadism to civilization, and architecture does not stop this transformation, because it has the potential for development and changing, so that it

keeps abreast of modern developments. The 21st century has developed new innovative concepts in architecture designed through the revolutionary and formal trends which have led designers to free themselves from the constraints of inherited forms

with the evolving natural, cosmic forms and environment. Architecture is a dynamic element, such as the other cultural manifestations of peoples, civilizations, their arts, techniques and sciences, because some heritage functions have changed. So that, architecture cannot remain static. Meanwhile, vocational training centers should keep pace with these different design and technological breakthroughs. Besides, they must represent a new vision in contemporary design which will more effectively affect the nation's renaissance.

The last half of the 20st century witnessed many trends which flooded field of creativity and revolutionized design trends, philosophy and concepts, in addition, served as the basis of design for many years in the postmodern era. The traditional thought of the designer was released because of the emergence of modern scientific theories, laws of motion and Einstein's theory of relativity. Consequently, the most important transformations which will have a greater impact on design trends in the 21st century have been concerned about the reciprocal relationship between design and science.

Therefore, architecture and arts reflect the culture of peoples, as well as, they do not take a static, vital or dynamic form. The development of design means the continuous transformation of the architectural image as a changing cultural phenomenon which reflect the vision and ideas of societies in changing forms. The vocational training centers, which include many different disciplines to raise local and international communities, are one of the landmarks of the city, because its heritage style, distinctive handicraft industries, the professional and technical services provided by these centers, which must keep up contemporary design developments. This will contribute for next generation to look forward in advanced arts and traditional handicrafts. It also encourages the visitors of the city on heritage of the city and contributes to the local economy of societies. The professional, technical, crafts and handicraft trades, especially those associated with some folk and traditional industries, are a kind of basic industries because they represent artistic value, in addition, they represent a real view of part of our heritage and folklore for each of our Arab countries.

Vocational training centers aim to contribute of the professional development of local, regional and international communities in professional and technical fields between different countries. In addition, they help students and graduates for work as a link between various professional companies and society, through communication with cultural and professional institutions. As well as they build relationships with various national, regional and

international institutions to provide training programs designed to meet their needs and to benefit from the experience of other international bodies in the training programs. The role of architecture and design in the preparation of these centers to match with international standards, produce, operate according to the required framework and achieve the highest efficiency in production.

The objective of the research is to raise the efficiency of the vocational training centers by developing the interior architecture of these centers in the framework of modern trends in design and overcome the design problems affected by these centers. Consequently, it contributes to raising the efficiency of the market needs and the private sector through the provision of training and education programs. Besides, vocational training centers provide training programs for all sectors of society, including students, youth, the elderly and people with special needs.

This has led to the recognition of the vocational training centers strategies to improve the design process to achieve educational quality. The aim of training is to lead to a job opportunity and look forward to a bright future which transcends negatives, builds positives, develops ambition, creates a spirit of innovation, and increases the skills and abilities of the individual in all areas of life. Therefore, it is important to establish a qualified training center in accordance with international standards, in addition, developing the planning, design and implementation vocational, technical training centers and activation the role of technology in vocational training centers, crafts and arts.

The problem of research is the rigidity, monotony and neglect of the vocational and technical training centers in the local communities and the low status of these centers despite their vital role in the development of the society (Figure 1,2,3,4,5) through focusing on the content of the advanced training programs only. In addition, the design aspect of these spaces is not taken into consideration despite of interest in architecture and design in many areas such as hotels, commercial centers, exhibitions, hospitals, museums, cultural palaces, cultural centers, administrative spaces, etc. Many of the vocational training centers remain neglected designedly and intellectually alongside the marginalized view of society (Figure 9,10,11,12). In addition, this in turn led to the weakness of architectural and interior design in all elements, training spaces, services and others which do not suitable such a type of centers which require creativity, innovation and specific standards in the establishment and design to modernize these spaces

as well as creating interactive spaces involving students and trainers.

Furthermore, the research through these problems facing the vocational training centers seeks to explore the impact of the thought of the training centers, the traditional crafts, the arts in modernity and the digital revolution. This will contribute to raise the efficiency of the trainees, students as in the recent era, the systems and techniques which can contribute to solve the stability and rigidity of these centers through the integration of science,

elements of modern training and digital design. Hence, there are many problems such as the lack of studies on the interest in the design relationship, the gaps in vocational and technical training, the lack of focus on how to attract the public, the required training spaces and recreational services for recreation and participation with each other. As result as, the research will help to face the difficulties of these centers, which is the loss of effective support to enable them for adapting the economic changes.



Fig. (1) (2) (3) (4) (5) Poor planning of a vocational training center interior design which offers training programs in (conditioning & refrigeration, beauty center and electrical installations).



Fig. (6) (7) (8) Training spaces of the vocational training center, which do not suitable for work, movement and interaction.



Fig. (9) (10) (11) (12) Vacancies workshops for the vocational training center, which does not help to engage students and motivate them, In addition, random in the interior architecture and elements of training activities.



Fig. (13) (14) (15) (16) (17) Weak design of vocational training centers, these environments do not drive trainees and students for creativity, individuality and participation.

1.1 Workshops: Spaces for Creatives

[Workforce education] is referred to as technical and vocational education which leads to university degrees, certificate programs, and short-term courses to prepare students and participants for jobs [1]. Vocational training centers are the main spaces of the workshops because they are creative environments designed for the creative activities offered by these centers. The profession in the

studio or workshop includes the intellectual and practical aspects. The working environment must have specific design criteria, as it functions as a place of production. Creative spaces can be luxurious, fun, structural, bright, colorful, organized, elegant, or otherwise designed to stimulate participants to creativity and production [2].

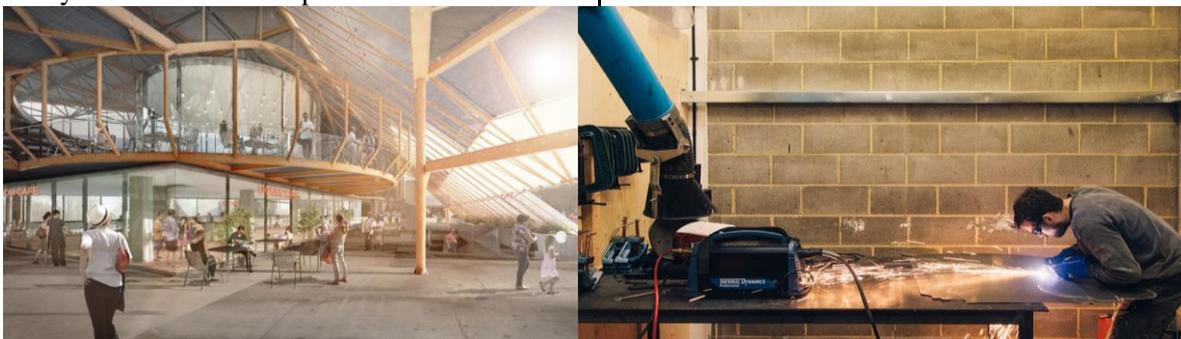


Fig. (18) (19) Interior architecture of a vocational center design shows open spaces with services, corridors, spaces of educational workshops, galleries and administrative spaces [3].

1.2 Transforming vocational workshops into 21st century learning labs

Creative professions need creative work environments which inspire students. These spaces have a dual nature, which is to link practical and intellectual work, although the aim is always to achieve creative potential in results [5]. Today, the way for learning students is different. Services are adapted to the growing demands of technology, vocational learning, and project-based learning. The curriculum has shifted, topics become more effective and creative, and the ways students are involved are changing. Therefore, the design and facilities of vocational centers must keep up the growing demands of technology, collaborative learning, professional and technical education based on projects. These changes in technology and

rapid development must be accompanied by the creation of nontraditional learning environments, as with many science, technology, engineering, arts and math education centers, which are integrated into many vocational schools and training centers in developed countries.

1.3 Learning transformation

CREATIVE COMMUNITY SPACES

[Spaces which are transforming communities into Innovation Hubs]

This transformation of planning and design of vocational centers is not a complete architectural transformation as much as a behavioral transformation. Most of these types of spaces still contain static walls, despite, the types of social cooperation and learning activities which occur within these walls must change. Learning

environments provide students and trainers with a practical and social way to design and innovate major projects and products. These environments deeply and creatively support the blending of science, technology, engineering, art and mathematics, which was the basic philosophy of technical and vocational education programs [5].



Fig. (20) (21) (22) The interior design of the modern workshop spaces which emphasize the interaction of the participants in the work environment through contemporary coordinated planning to drive creativity [5].

1.4 Flexibility, changeability, adaptability

Designing vocational training centers to accommodate this wide range of activities can be difficult. Accurate research and planning attempts are extremely important in designing a learning environment supportive of multiple learning objectives, despite, the principle of planning which lies in many successful vocational learning spaces and contemporary learning technology is flexibility[5]. When exploring the spatial aspects of such spaces, a set of considerations for workshop space, allowing flexibility between small individual tasks and complex large projects. The learning environment must be simple to change and adaptable quickly, which may increase mobility to the highest level of development.

Because innovative and interactive learning environments, such as vocational training spaces, are designed to be experimental project laboratories, building materials and finishes which must be durable and accurate. The ceilings must be

Vocational training centers are not just a scientific space or a technical laboratory. All these activities must be integrated into one environment. In addition, the designer must focus of designing a variety of activities, tools and programs for students, which are important for learning and exploration (Figure 20,21,22).

limited and a common open space, exposing lighting, mechanical channels, equipment, power operation and other essential infrastructure to support the learning process based on training and project to further enhance the learning process. Besides, connection to project areas requires many project-related activities for more work space, equipment or gases unsuitable for indoor use. All these criteria should be taken into consideration in the design process of vocational training centers.

As construction costs and labor demand increase, these types of learning spaces can also help educational districts for saving initial construction costs, annual operating and maintenance budgets. Promoting entrepreneurship-based innovation is central to today's successful collaborative learning environment, as well as, these standards must be designed in spaces to encourage imagination. It is a place to learn, design, collaborate without rules and explore new inventions and innovations (Figure 23,24).



Fig. (23) (24) The interior architecture of workshops spaces in the vocational centers, which represent the spaces of creativity, innovation, production and the main space in the vocational training centers by different activities and fields [6].

1.5 Transformation from static spaces to dynamic spaces

Vocational education is the foundation of development in societies despite suffers from community neglect. Vocational training is one of the most important pillars of human resources development, especially after the industrial and technological revolution witnessed by the world in

various fields and the development of work to reduce the human effort, so the need for skilled labor and technicians in various fields of the labor market is necessary to benefit from these techniques. The vocational training centers represent a unique type of art industries; therefore, they require distinctive elements in architectural and design spaces. Some designers support the

traditional design to highlight these crafts and the arts. on the other hand, others prefer towards modern designs. Meanwhile, the modern era is characterized by dynamic on the technology, its applications and advanced mechanisms, which affected the fields and systems of science. Therefore, different knowledge has been reflected on the field of architecture. The parameters are now

very fast and even amazing. The design of interior design [changes, renews, moves], as it continues to change as a feature of the times. The changes may occur as a design movement or occur because of a new technological. These vital concepts must be reconciled between stability and dynamism in vocational training centers, in addition, it should be integrated into internal spaces (Figure 25,26,29,30).

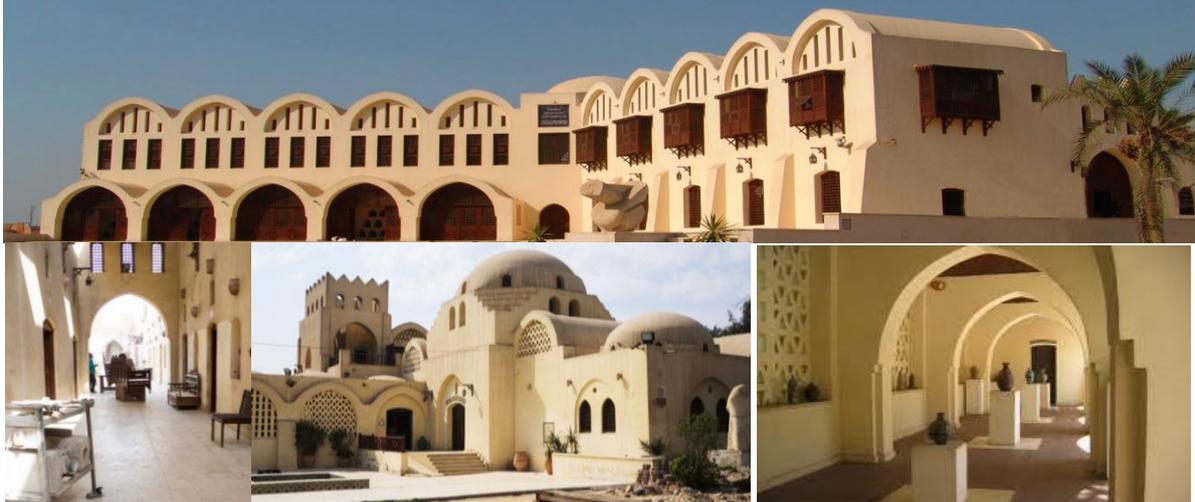


Fig. (25) (26) (27) (28) Al Fustat Center design for Arts and Crafts, this art center is located near the National Museum of Egyptian Civilization. The project is an extension of the craft center in Fustat to accommodate all forms and elements of traditional crafts in one place by adding more sections such as: fabric, glass, stained glass, a conference room, a changing gallery, copper, bronze casting and other intensive training in the design principles and traditional arts language [7].

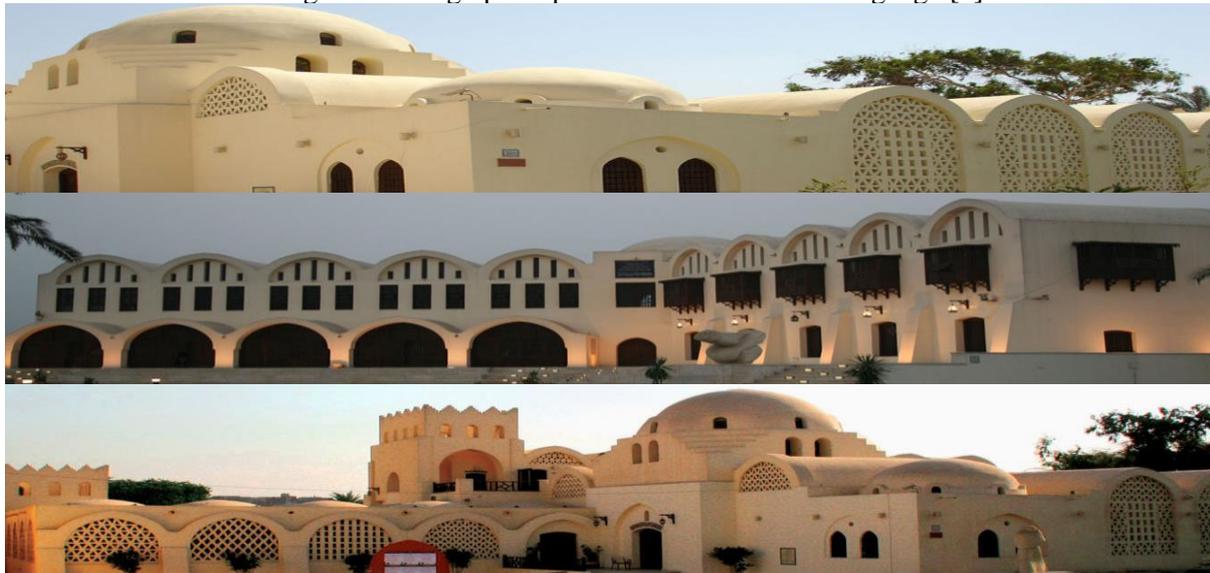


Fig. (29) (30) (31) The architectural facades of the center, the identity reflection of the place and the activities provided by the center on the design, in

order to achieve the main objective of the center in preserving the traditional crafts of extinction and training a new generation of potters and craftsmen who are ready to acquire a profession in the ceramic industry Gypsum, textile, wood and copper concrete. Local techniques and materials are to develop a new range of products which would expand traditional Egyptian art and handicrafts at present [8].

1.6 The relationship between human, concept and identity of the place

The new trends and techniques have created a new category of experience which has transcended the constraints on the classical concepts of space and time, and its impact on the thought of interior space. It is important to focus on the relationship between human and space to search for the concept, identity and genius of the place. The philosopher [Elizabeth Grosz] poses a question in his 1995 book, [Writing in Space, Time and Perversion], on whether architecture can rethink the exterior, in terms of surfaces, activity and movement rather

than stability [9]. This is confirmed by vocational training centers on the importance of the relationship between employment, trainees and the identity of the place which is reflected on society.

2. Materials and methods

The objective of vocational training institutions is to provide students and participates with skills to help them obtain jobs according to the required disciplines. The training centers operate according to the market economy and meet the needs of the local market. The research approach comes through the descriptive analytical approach to shed the role on the development of vocational training centers and their design aspects in the development of society, in addition, they are addressing the phenomenon of poverty and unemployment.

2.1 Development mechanisms of vocational training centers

Vocational and technical training play a detailed role in economic life as one of the main tools in the formation of human cadres. The research is based



on analyzing the reasons for the weakness of the vocational training centers. It must be subject to quality standards when designed to keep up with the digital communication revolution which we are currently living because digital communication tools have developed rapidly. As well as, technology will allow the designer to compete outside the local market and support of the design process [10].

2.3 Vocational training centers definition

Vocational training is a set of activities aimed at building and developing human capacities for practical life and productivity [12]. Vocational training centers are a comprehensive institution in all professional, technical and professional programs in various disciplines required by the community and private institutions. These centers turn ideas into projects, jobs and open new horizons for communities (Figure 32,33).

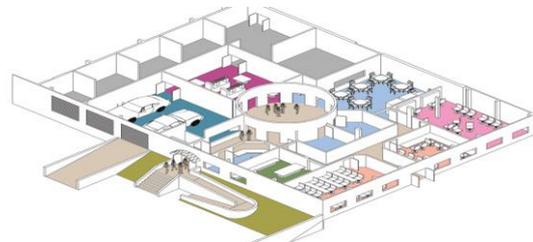


Fig. (32) Illustration of [the Ted Taylor Professional Training Center] and interior spaces, where students are trained in restaurant functions, food services, and the construction academy. The vocational center consists of two floors which are divided to four-storey for teaching programs in car and tractor repair, metalworking and welding, irrigation and water solutions, refrigeration, food safety and sustainable construction solutions [11]. **Fig. (33)** Perspectives are showing the interior spaces of the vocational training center [12].

2.3 Interior architecture of vocational training centers

The design and management of training programs for vocational, technical education, training for professions, modern fields in engineering, medical, informatics, agricultural and technical fields require specialized equipment from interior spaces to receive customers and training rooms according to the various activities offered by these centers. The number of training rooms should also be

commensurate with the activities carried out by these centers, as well as the design of halls, corridors, entrances, customer service fairs, exhibitions to display trainees' products, cultural spaces and other services. Meanwhile, the clearly defined exit places of the obstacles, the design of ceilings, floors, lighting, materials suitable to deal with the designer to reach the idea of design and functional centers to achieve the desired goals.



Fig. (34) (35) (36) (37) The purpose of the vocational training center is to encourage and educate poor families. The design is directed at a simple rural poor community for training in art and manual crafts [13].

2.4 Vocational training Programs

Vocational training centers offer training programs in which trainees are prepared at the three basic levels of work (vocational, skilled and skill-defined) to join the labor market, in addition, they provide them with the necessary skills and knowledge according to the technical standards of skills. These programs aim to train employees in public, private institutions and companies to raise their competence in occupational safety and health. The competency-based training methodology relies on knowledge, skills and attitudes to be able of using modern technology. These programs cover several areas: efficiency upgrading programs, continuing training programs, community service,

occupational safety and health training programs.

2.5 Various training activities in vocational training centers

Vocational and technical training centers are important trends which contribute to social development and reduce poverty [12]. These centers offer many training programs from different levels up to hundreds of programs. These programs lead to the achievement of knowledge and practical skills to meet the needs of individuals, productive institutions and the community. Training and professional development services must be provided in accordance with the needs of the labor market and society in partnership with institutions and society.

[Training programs in vocational training centers are divided into three basic types]

1. The first type: vocational preparation programs

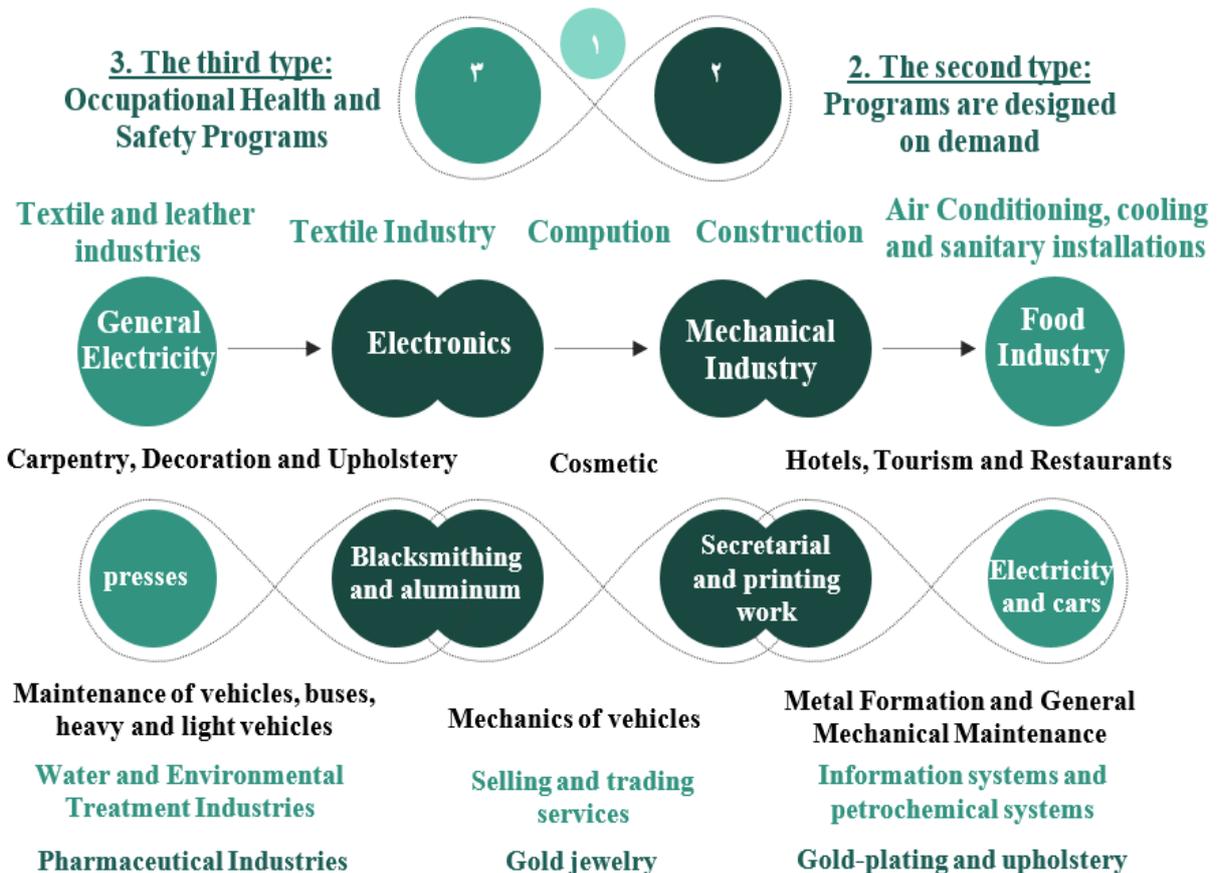


Fig. (38) The sectors and fields of the various training programs provided by the vocational training centers, which require specific design criteria including training halls, services, components of space and interior movement.

3. Digital Revolution concepts

The digital revolution is the pioneering tool for the globalization of the new cosmic order. This technique, which began in the 1980s, witnessed profound and profound transformations which increased the speed of communication, so that technical obstacles, political considerations and geographical limits no longer impede intellectual

development in design. The emergence of amazing developments in all aspects of life, there is no longer except the invasion of the digital revolution and affected directly or indirectly. Therefore, in architecture and design, the concepts of digital architecture have emerged which are dominated by other new types in the trends of contemporary design.

3.1 The influence of the digital age in the development of vocational training centers

The digital revolution has produced a sophisticated architecture which has been in contemporary architectural trends through creative design ideas in terms of form and function, in addition, it cannot be reached by the designer under its traditional design tools. This development was influenced by various

elements such as composition, function, interior space and architectural design. In the framework of digital architecture, vocational training centers have been affected by the digital revolution to become the space flexible (Figure 39,40,41).



Fig. (39) the vocational training center floor plan which shows the interior spaces, corridors and services.



Fig. (40) (41) Interior perspectives of the vocational training center which demonstrates the impact of the digital age and flexible open spaces with double focus on providing ideal learning spaces, as well as, providing learning spaces in the three exterior areas determined by the size of the building. Inside, learning spaces are designed around a flexible "shared space", with direct access to each element. The union space provided the possibility of maintaining a variety of functions, from a coffee shop in the most open, to the spaces of workshops in the double height areas, to the quiet study areas [14].

3.2 Post-modernist and deconstruction concept

The post-modernism trend, in contrast to concepts

of ancient times for simple white patterns, with straight lines, functionalities. The new trends formed the patterns distorted, heterogeneous,

imaginary and chaotic forms. The post-modernism movement is the beginning to bring more mathematical information into the environment. The deconstruction forms of chaos, the forms of chaos, and mathematics which generate fractal

rhythms to explore the Complexities of the relationship between organization and chaos then link them to musical rhythms in design (Figure 42,43,44).



Fig. (42) (43) (44) Floor plans, architectural design and interior architecture of the project proposal "Center for Vocational Education, Vocational Development and Skills Development" in Romania. The building is inspired by deconstruction concept where it deconstructs, then the design relates to the surrounding field.

The green spaces are formed buildings in various forms. The center has a vocational school, consisting of interactive workshops with spaces for trainers, a commercial space, a multipurpose room, a conference room, artistic spaces and activities in a multi-function hall. Besides, the restaurant is to attract and entertain people through organizing many events which promote the spirit of society, including external performances.

On the first floor, there are spaces for workshops to study foreign languages, accounting, management, human resources, information technology, cosmetics or other professional work. There is also an audio-visual library, spaces for socialization and small exhibition spaces [15]. The second floor contains an outdoor green terrace, study spaces and social activities along with a photography workshop in close link with the beauty salon. On the same floor, offices spaces were designed for the branches of counseling, self-assessment and a small space for socialization. Raw materials have been a fundamental sustainable element in design through the use of glass and green spaces in various forms, such as high, low plants and plant walls.

4. Form-Finding process in digital

architecture and interior design

Digital architecture is a creation and innovation in modern times. This has helped in the way architecture is shaped in modern society. Digital architecture gives architects and designers many possibilities and tools to continue exploring and create their ideas.

4.1 Free forms

Digital design processes have been manifested in form-finding process of free forms to create digital work spaces. It encourages creativity and innovation through computation techniques in digital fabrication which facilitated complex designs and free forms to analyze of digital techniques concept (Figure 45,46,47).

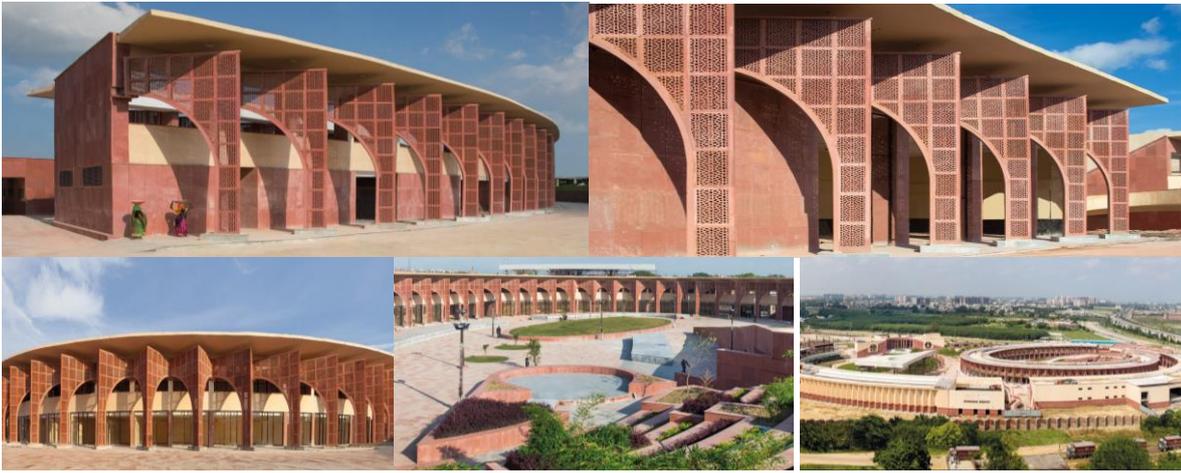


Fig. (45) (46) (47) Architectural design of the handicraft center, which includes nearly 200 handicraft stores from all over the region and beyond, as well as, craft courts to host workshops, auditorium, exhibition hall and dining hall. The aim of the center is to provide local craftsmen with a place to exchange ideas, educate and sell their businesses directly to customers. The complex carved patterns were inspired from the traditional style of the city. Outside the spiral main building, a group of stone-walled buildings with round roofs covered with grass in exhibition spaces where artisans can conduct workshops. There is an arc-shaped hall and dining room overlooking a circular garden. The main buildings have been finished with red sandstone, which help to unify their various forms and functions [16].



Fig. (48) (49) (50) Floor plans of the handicrafts center which is designed using free organic forms of flexible movement along with a range of shapes and materials which indicate the random configuration of urban markets throughout the region. From the entrance courtyard, the construction of the escalating structure with shops gradually leads visitors towards an open courtyard in the middle of the building. The design simulates the density and vitality of the traditional markets of the community, which have gradually growing streets, being an important architectural element in the city's professional architecture and contemporary style.

4.2 Design standards for vocational training centers

These centers provide artistic creativity through providing expertise, knowledge, craftsmanship, professional and technical skills. In addition, it is very important to set strategies for the training center and a general framework in designing these centers as an interactive interface for developing professional, technical activities, handicrafts and integrating them into architectural design and contemporary trends. The main objective is to

combine crafts related to the physical environment and spatial design to explore new models and solutions in the current environment. The research seeks to design vocational training centers as innovative concepts and craft design practices to interact, organize programs & workshops and produce many products which contribute to the renaissance of the economy (Figure 51,52,53) [17].



Fig. (51) (52) (53) InDesign Center for Crafts, a community center, serves as a catalyst for creative expression and active participation of community members [20].



Fig. (54) The floor plan of the vocational training center which consists of the entrances, the commercial area, the main courtyard of the project, workshops and the main hall.

Methodologies and standards must be taken into consideration when designing vocational training centers, which include:

1. It must evaluate the performance of the vocational training centers in terms of adherence to the overall quality standards of the message, planning, interior design, leadership, management, training process, training staff and trainees Services [21].
2. The importance of design concept for the vocational training center through the contemporary trends which include digital trends and the use of modern technology methods. In addition, it will make the space a common and interactive work space for trainees to achieve more effective results.
3. Designers must take care of the training center which preserves the heritage of the community.
4. The vocational training center must suitable the training activities to design the theoretical and practical training rooms, in addition, set up the necessary equipment and tools in the space.
5. Design of these centers should consider the diversity of students in terms of age of young people, the elderly and people with special needs when designing spaces workshops and training activities.
6. The vocational training center must contain all the services which facilitate the process of the participant training to stimulate them of the production and sell their products.
7. The design must provide dynamic showrooms in a variety of technological methods to present the results of the training of professional products and craftsmanship for participants, as well as regional, national and international exhibitions [18].
8. The design must be an open space without any obstacles in an interactive working environment consisting of classrooms, laboratories, workshops, art rooms, music, cosmetics, blacksmiths and many other professional fields [19].
9. The vocational training center must enhance the functional aspects of the size of spaces, halls, traffic corridors, health and safety standards, integration of environmental strategies in the construction system of various workshop halls and training spaces such as natural ventilation.
10. It must establish a multi-activity center as a community interaction area, a visitor center, a testing area for local building materials and a vocational training facility.
11. Vocational education can be expected from employers if the labour market is largely informal with a small manufacturing sector to fill the gap between educated and employable.
12. We must enhance the employability of youth through demand-driven, competency based, modular vocational courses.

Vocational training centers spaces	
Lobby and Reception	Main cores / Waiting area / Lobby / Toilets / others
Youth Educational	Class rooms / Computer labs / Storage / Crafts rooms / Toilets / Services / Corridors / Factory for equipment
Educational	Class rooms / Lecture halls / Staff rooms / Computer labs / Studing areas / Wood workshops / Metal workshops / Car workshops / Other workshops / Nursing / Cosmetics / Storage / Shops / Crafts rooms / Toilets / Services / corridors
Services	Multi-purpose unit / Cafeteria / Clinic / Conference hall / Toilets
Admiration	Admission office / Registration / Offices / Exhibition- Showroom / Customers services / Library / Kitchenette.

Fig. (55) A diagram showing the main spaces in the vocational training centers. They are variable depending on the function, type and activities of the center provided by them [21].

5. Results and discussion

Vocational Training Centers are a dynamic space which serve a range of individual and collective needs. It can be transformed from a collaborative space for meetings, events and workshops to a space for creativity, work independently and effectively. In addition, the research was based on the design of vocational training centers from small workshops to the needs of society according to the

trends of contemporary design and digital architecture. Consequently, the research highlighted the importance of the vocational training centers to preserve the heritage in a contemporary concept and emphasize the craft of the society. Designers must promote creative design strategies for these centers to improve the learning environment of students and trainees. The translation of this objective into the creation of tools to review the

internal mechanisms to connect with community and production at the local level. In conclusion, the research concluded a set of standards and strategies for vocational training centers, strengthening and organizing them to improve the design aspect and achieve educational quality through contemporary design. Therefore, it will contribute of understanding the continuing challenges which faced these centers and needs of society.

6. Conclusion

It is important to establish a vocational training center which enhances the spirit of society and works to exchange ideas. The research concluded a set of strategies and criteria's in the design of vocational training centers, which must be followed by the architect and interior designer through the digital trends, originality and spirit of the place. It will make the training centers interactive spaces and centers of creative life. Finally, the research enhanced the impact of the digital revolution in the development of vocational training centers, as well as, the importance of the contemporary design role and quality management, which play a vital role in the development of society. Consequently, it will provide the tools for vocational training centers, the development of training activities and programs.

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