Mind-Mapping as an Effective Tool for Realizing Aesthetic & Functional Values' in Teaching Interior Design

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Abstract

Some of the recent crises in our society - the Corona virus crisis - stimulated innovation within the various educational institutions to overcome the negative effects of that crisis, which necessitated different mechanisms for teaching such as hybrid education and e-learning, which decreased students' achievement. Generally, it is not possible to assert these mechanisms ineffectiveness, exceeding their weaknesses, considering the education design process difficulty, especially in the interior design field, it requires various teaching skills and methods, which imposed innovative teaching mechanisms and methods to support maintaining proper design education. Therefore, and applying to some practical institutions as art colleges - that require direct students' communication - it was necessary innovating mechanisms, other teaching, and learning tools match with that nature. For more specification, interior design, which requires special teaching methods of the design processes, especially for first grades students, who have lack of expressing tools, or insufficient experience to realize the aesthetic and functional values if they integrated them successfully.

Therefore, it was necessary to search a tool - such as mind mapping – for teaching & learning the design process - to profound these values, to be applied on the designs of first-year students) Interior Design Dept., Faculty of Applied Arts, Helwan University). Also, when the effect of expressing those values clearly and easily perceived, subsequently, designs are distinctive. Accordingly, they are considered as a support in evaluation process during the study, or in increasing competitiveness later in their career, which confirms the goals of these educational institutions.

Keywords:

interior design planning, design strategy, mind-mapping, design perception.

Research problem

The problem of the research is not to benefit from mental maps as an effective strategy and tool in interior design in a distinctive and innovative way, which helps to express and improve the awareness of aesthetic and functional values in the residential spaces of interior design students in the first school stages.

Research aims

The research aims at several main points, namely:
- Defining what mind maps are and expanding their use as an effective strategy and tool for interior design, for interior design students in the first school stages.
- Increase the skills of these students in the interior design process.

- Develop their creative abilities as a result of increasing the ability to show functional and aesthetic values in their designs, which increases their competitive abilities during study and in the future in the labor market.

Research Hypothesis
The research assumes that the use of mental maps as a strategy and design tool used in the interior design of residential spaces increases the clarity of the aesthetic and functional values in it, and consequently its better awareness, which works to enrich the level of creativity in the design process and improve the final product of the design.

Research Methodology
Due to the lack of applied studies in this field - especially mental maps in interior design - the researcher relied on the experimental and analytical descriptive approach to link the design process with its successive stages, to reach creative solutions in the interior design of residential spaces through the use of mind maps, and the realization of the various aesthetic and functional relationships as a result of the clarity of their expression, which gives distinction to these designs.

The search limits
The limits of the research can be limited to studying the effect of using the mental mapping strategy on the design process for students of the first teams in the Department of Interior Design, Faculty of Applied Arts, Helwan University, where the lack of sufficient experience of tools and mechanisms for expressing the different values in design with a weak ability to realize these values through placing a blueprint for the interior design of a residential space.

An introduction
There has been a need to devise new methodologies and strategies for teaching and learning, but some educational institutions - with a special nature of practical and applied learning environments and courses, as these curricula require direct communication with learners. And since the era in which we live can be called the era of interest in the psychology of thinking and perception, which requires the use of innovative strategies and tools that help in the presence of a design product that has the ability to achieve its goal, and this product is also characterized by the ability to compete in light of globalization (Al-Qabat, 2019).

On the other hand, the design process is characterized by the presence of specific and sequential steps and mechanisms leading to the final product - including the interior design of the various spaces - we focus here on the residential space. This process includes developing a visualization of the interior design based on the method of use and the type of users in what is known as the design scheme. There are some requirements for making these plans before the interior design process to arrange ideas (Saadawi 2016), and to provide the needs and requirements targeted by this design, on top of which are functional, environmental and aesthetic requirements.... etc. In order to develop a design scheme, it is necessary to have data collected in advance for the activities and tasks that are supposed to be carried out in the space, and if that data is not available, a design scheme can be drawn up based on previous knowledge or guesswork, provided that these schemes are subjects to be reviewed by users to make design decisions, this

point specifically reflects the importance of the research, as the students of the first teams lack the elements of developing such schemes, which leads to the presence of vital weaknesses in their designs. They - that is, these students - do not have the ability to translate or formulate these plans in an expressive and clear way, which reflects their understanding and ability to provide various requirements such as functional and aesthetic values, which are the first attraction factor for design, which helps its success and spread. Therefore, the research aims to focus on the importance of using a tool that contributes greatly to the expression of aesthetic and functional values and helps to realize them in residential interior design, namely, mental maps, which are considered - as a tool for mental thinking - a worldwide phenomenon (Abdel-Raouf Amer, 2015). Since good design represents a solution to a design problem, it is necessary to develop a pre-plan for the solution method with the availability of different values in it. Therefore, students of different disciplines must be trained with the necessary thinking skills to increase the ability to solve design problems facing them in an atypical creative way. Based on these rationales, it is expected that the study will result in indications of the impact that the use of mental maps reflects on the interior design's inclusion of functional and aesthetic values, to confirm or negate the effectiveness of its use as a tool to express more clearly, and to apply it in the process of interior design of residential spaces, and thus more capable perceivable by the recipient.

At the end of the experiment, the results can be confirmed and summarized as follows:
a. The need to take into account individual differences between students, which is one of the most important benefits of using mind maps, especially with the initial study stages of specialization in the field of interior design, where some students lack the ability to imagine as well as express design ideas that may be creative and distinct without an appropriate presentation method.
NS. It works on developing thinking skills, as it puts design students on the right track in the way to reach orderly and deliberate design results as a result of a more organized way of thinking.
NS. It works to motivate the student to be creative and revitalize the mind, because it opens the field of imagination and logical visualization of the design idea in a way that the student himself can comprehend.
NS. It works to generate new ideas and opinions that reach the stage of creativity.
NS. It contributes to developing the ability to employ the skill of drawing and directing well, which supports the manual technical capabilities that characterize the study in art colleges.
NS. Significantly helps to remember important ideas and retrieve information easily and simplify them appropriately, which enables the student to express his design idea whenever he is asked to do so.
x. Raising the level of achievement of the learner,
Dr. Finally, mind maps are a flexible method that can be employed and benefited from at many educational materials and different specialized knowledge, and it works to increase active learning, in addition to directing learners to the need to complete the lack of information, if any (Al-Rifai, 2013).

10- Recommendations

From the results obtained, the following can be recommended:

▢ Work on creating new and innovative methods and methodologies for use in the teaching and learning process, especially in the field of interior design, where development requires what it touches from most if not all aspects of our lives.

Expanding the use of effective tools such as mental maps in the process of teaching interior design because of their positive impact in developing the innovation process and expressing the vocabulary and manifestations of this innovation, especially with the stages of studying the primary interior design specialization, where it is difficult to express the imaginations of design students because they lack the appropriate experience and ability to do so.

▢ Using mind maps that can be prepared using the computer to keep pace with the technological development system in the field of interior design.

▢ Emphasis on the importance of including interior design strengths and competitive supports such as different design values, with the importance of showing them to facilitate their perception by recipients, whether during study as students of specialization, or in the labor market as designers.

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