UNIVERSIDAD COMPLUTENSE DE MADRID
FACULTAD DE BELLAS ARTES

TESIS DOCTORAL

Diseñando exposiciones anuales de estudiantes: la Universidad de Petra como caso de estudio

Designing annual student exhibitions: Petra University as case study

MEMORIA PARA OPTAR AL GRADO DE DOCTOR

PRESENTADA POR

Muna Marwan Mahmoud Ansari

Directora

Sara Torres Vega

Madrid

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ADA	Art, Design, and Architecture education
CFL	Compact Fluorescent Lamps
FIDER	Foundation of Interior Design Education Research
HE	Higher Education
LED	Light Emitting Diodes
MDF	Medium Density Fiberboard
QAA	The Quality Assurance Agency for UK Higher Education
UNGC	United Nations Global Compact
UV	Ultraviolet

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SINOPSIS

El diseño de una exposición conlleva distintas tareas en diversas fases, incluyendo su planificación y su diseño. El principio de diseño de la exposición tiende a emplear la experiencia y la concienciación estéticas con el fin de producir un diseño integrado que equilibre la funcionalidad y la estética mediante el aporte de grados variables de belleza visual.

Desde la perspectiva del diseño, los métodos de creación estética del diseño de una exposición se basan en las demandas primarias de los seres humanos y se ven complementados por estas para facilitar un periodo de crecimiento variado. Por tanto, el diseño actual de exposiciones hace destacar el atractivo estético. El diseño de una exposición está totalmente vinculado al diseño estético concebido como un tipo de diseño y ya no se ofrece con una descripción directa, dado que la concienciación estética del público se ha alterado drásticamente y el diseño de exposiciones ha experimentado un desarrollo significativo.

El estudio consta de cinco partes. En primer lugar, se ofrece una breve guía respecto a las exposiciones anuales en la educación superior y sus valores educativos. La segunda parte trata el impacto sobre los visitantes como usuarios. En tercer lugar, se estudian el diseño de interiores y la implementación de una exposición anual, y también se ofrece una descripción del efecto de la belleza visual sobre los conceptos del diseño de exposiciones. En la cuarta parte se incluye el caso práctico de la exposición anual de la Universidad de Petra, en Amán (Jordania). Por último, la quinta parte se centra en la búsqueda un protocolo para la creación de exposiciones anuales de alumnos.

En los principios de diseño de las exposiciones anuales influye la perspectiva de la belleza visual con un rico conocimiento estético. Sin embargo, este estudio producirá obras de diseño más creativo y humanizado al prestar más atención al uso de distintos medios basados en la información y ofrecer innovaciones en términos de la filosofía del diseño, el lenguaje del diseño, el proceso del diseño y el patrón de presentación, todo ello para facilitar la creación y la implementación del diseño. Y, gracias a que se tiene en cuenta el papel del público de la exposición, se ayuda a garantizar que la exposición anual desempeñe un papel significativo como recurso comunitario.

ABSTRACT

The exhibition design encompasses a variety of topics at various phases, including planning and design of the exhibition. Exhibition design tends to use aesthetic experience and awareness as a design principle to produce an integrated design that balances functionality with aesthetics by giving varying degrees of visual beauty.

From the perspective of the design scope, the aesthetic-creating approaches of exhibition design are built on and supplemented by the primary demands of human beings to facilitate a varied period of growth. Therefore, today's exhibition's design emphasizes visual appeal. Exhibition design is completely linked to aesthetic design as a type of design and it is no longer offered with such a straightforward description, given that audiences' aesthetic awareness has drastically altered and that, exhibition design has achieved significant development.

This study consists of five parts: first, a brief guide to the annual exhibition in higher education, and educational values; second, the impact on visitors as users; third, the interior design and implementation of annual exhibition, and a description of the effect of visual beauty on exhibition design concepts; and, fourth, the use of the case study of annual exhibition of University of Petra in Amman- Jordan as a model to analyze the formal expression of annual exhibition design from the perspective of interior designer, and visual beauty; Fifth, finding protocol to create students' annual exhibitions.

The principles of annual exhibition design influence the visual beauty perspective with a rich aesthetic knowledge, yet this study will create more creative and humanized design works by paying more attention to the use of different information-based means and making innovations in terms of the philosophy of design, the language of design, the process of design, and the pattern of presentation, to facilitate the creation and implementation of design. And, by considering the public role of the exhibition, to help ensure the significant role of the annual exhibition.

RESUMEN DE LA INVESTIGACIÓN

El diseño de una exposición anual conlleva distintas tareas en diversas fases, incluyendo su planificación y su diseño. El principio de diseño de la exposición tiende a emplear la experiencia y la concienciación estéticas con el fin de producir un diseño integrado que equilibre la funcionalidad y la estética mediante el aporte de grados variables de belleza visual.

Desde la perspectiva del diseño de la exposición, los métodos de creación estética de dicho diseño se basan en las demandas primarias de los seres humanos y se ven complementados por estas. Por tanto, su diseño actual debería hacer destacar tanto el atractivo estético del espacio como las obras expuestas.

El diseño de la exposición está totalmente vinculado al diseño estético concebido como un tipo de diseño y ya no se ofrece con una descripción directa, dado que la concienciación estética del público se ha alterado drásticamente y el diseño de exposiciones ha experimentado un desarrollo significativo.

El objetivo de esta tesis es identificar unas bases efectivas para diseñar exposiciones anuales de alumnos mediante un impulso del papel del diseño de interiores con todos sus elementos tangibles e intangibles, teniendo en cuenta que se dirigen a públicos diversos con muchas diferencias, así como brindar una visión clara para los que vayan a llevar a

cabo esta labor en el futuro, recordando la interrelación con la pedagogía del aprendizaje en la educación superior y universitaria, en especial en las facultades de diseño, con el fin de alcanzar un punto en el que estas exposiciones anuales se deban tratar de acuerdo con los resultados reales con la esperanza de alcanzar los objetivos finales en cualquier institución. Esta investigación se ha basado en prácticas reales con la ayuda de métodos cuantitativos y cualitativos para la recopilación y el análisis de datos.

A partir del análisis cuantitativo y cualitativo de esta investigación, se puede concluir que tanto los valores estéticos del espacio como la percepción, el comportamiento, la experiencia y la interacción de los visitantes son factores importantes a tener en cuenta al diseñar y buscar la interacción social. Los resultados indican que el éxito se logra gracias a la colaboración entre distintas partes, empezando por la institución de educación superior y el papel de la universidad hasta llegar al cuerpo docente y al equipo de la exposición anual y a sus alumnos; se trata de un gran éxito y debería ser un ejemplo a seguir.

La investigación se ha visto sujeta a ciertas limitaciones; por ejemplo, debido a la pandemia de coronavirus, las exposiciones anuales de los alumnos se cancelaron durante casi dos años, lo que produjo una interrupción en los patrones de exposición, además de la interacción limitada entre el alumnado y sus producciones; además, lo más difícil para el equipo de diseño fue traducir los conceptos artísticos de la atmósfera del estudio de arte a experiencias en exposiciones inmersivas y fascinantes. Otra limitación fue la dificultad para acceder a los planes técnicos de las exposiciones. Una limitación adicional fue que, por desgracia, los visitantes tienden a centrarse más en las obras expuestas que en apreciar la belleza del espacio físico y su estética.

Además, el concepto de exposición anual se considera más un evento único que un proceso de aprendizaje continuo. Estudios futuros deberían analizar estos temas en más profundidad para obtener una comprensión más detallada de sus efectos sobre la satisfacción de los visitantes.

En conclusión, esta investigación ha conseguido responder con éxito a las preguntas principales de la investigación: ¿hasta qué punto el contenido de la creación de una exposición anual influye en la experiencia del público? ¿Cuál es la naturaleza del público? ¿Hasta qué punto el entorno cambiante de una exposición influye en la experiencia del público? ¿Por qué las exposiciones deberían considerarse investigación en lugar de un foro para presentar y compartir los resultados de investigaciones?

¿Cómo podría usarse la psicología ambiental en el diseño de interiores contemporáneo?

¿Los diseñadores resuelven los retos? ¿Qué hace que tu tema y tu muestra sean especiales? ¿Y qué estructura usarás para exponer los objetos seleccionados y demostrar tu concepto o tu tema de manera más clara? ¿Cómo debería comisariarse en el futuro para conseguir unos protocolos exitosos para el diseño de exposiciones anuales del alumnado?

Las exposiciones anuales crean un entorno al que visitantes y alumnos pueden acudir con el fin de involucrarse en una experiencia de aprendizaje social, mientras que las actividades hacen que se involucren. Como resultado, el objetivo de cualquier muestra debería ser proporcionar experiencias de aprendizaje elaboradas con inteligencia en lugar de enseñar. La curiosidad, la observación y la actividad se usan para iniciar y procesar el aprendizaje.

Según esta investigación, había cuatro finalidades principales. Primero, aumentar la consistencia visual, ya que este es un factor crítico a la hora de reforzar la visión humana y posee una enorme influencia en el modo en el que los humanos interpretan el mundo del diseño

de interiores; en esta investigación, esto se logró con un enfoque y un análisis centrados en el espacio, la forma, el color, la calidad de la luz producida y las tecnologías usadas en la sala en el que se celebra la exposición anual, lo que hace posible y facilita que los visitantes entiendan el trabajo de los alumnos sin interrupciones.

En segundo lugar, mejorar el aspecto visual de la exposición anual, lo que permite a los visitantes llevar a cabo sus tareas de forma tranquila, agradable, cómoda y directa. Esto se logró permitiendo a los visitantes sentirse más cómodos con el uso de dispositivos,

moviéndose por la sala de exposiciones, hablando con el alumnado y el personal,

y asistiendo a seminarios. Además, se realizaron cuestionarios y encuestas para conocer el punto de vista de dichos visitantes y sus niveles de satisfacción.

Este aspecto visual también se discute en muchas partes de mi tesis. El acceso a la belleza visual de una exposición anual se puede lograr mediante conceptos creativos y detalles de diseño de interiores que aportan matices extra a las exposiciones.

En tercer lugar, transmitir información sobre lo expuesto a los visitantes, por lo que una distribución eficiente de la información mostrada es uno de los aspectos más importantes del diseño de exposiciones; esta finalidad se logró mediante los grandes esfuerzos de las obras cruciales y el personal de la facultad y sus alumnos, en los que un gran número de ideas, conceptos y temáticas se llevaron a cabo mediante ejercicios y proyectos dados al alumnado para garantizar la cantidad y la calidad de la información que queríamos que se transmitiera a los visitantes y su fuerte relación con el título y la idea de nuestra exposición.

En cuarto lugar, lograr valores estéticos, armonía, unidad y pureza mediante la combinación de una sensación y un lenguaje específicos con una intervención específica. Esta es mi finalidad principal, debido a que el diseño de una exposición está totalmente vinculado a valores de diseño, como un tipo de diseño, y ya no se ofrece con una descripción directa, sino que es más bien un lenguaje, un proceso y la psicología del diseño de la exposición. Con la esperanza de que nuestros visitantes puedan apreciar la belleza del espacio físico y su estética. Como resultado, el diseño de la exposición hace destacar a la vez tanto el atractivo estético del diseño del espacio como las obras expuestas.

Los métodos de aprendizaje y enseñanza del diseño tratan de lograr un equilibrio entre el proceso creativo y una comprensión crítica de unos criterios más objetivos en la creación de un concepto.

La técnica de trabajo de taller, que incorpora el principio de «observa y aprende de mí»; Finnigan y Richards (2016). Como resultado, es fundamental crear confianza con el grupo de alumnos para asegurarse de que estos descubren su propia voz.

A los alumnos se les debería permitir incluir sus propias personalidades en su obra. Sin embargo, a algunas personas esto les resulta más difícil que a otras.

Los educadores de arte y diseño deben ser conscientes del poder que tienen para animar o desanimar a los alumnos a que desarrollen su propia forma de hacer las cosas.

Para que la exposición anual logre efectividad en la educación superior hay involucrado un aspecto humano. El nivel de atención de los visitantes, su comprensión y su comportamiento responden a numerosos aspectos de la exposición y se fusionan en una sola entidad que no se puede separar.

En la actualidad, los componentes informativos tienen una función que va más allá de la de ser meros elementos que identifican información; también actúan como una narrativa que cuenta una historia y como piezas estéticamente bellas que mejoran el espacio expositivo.

Este evento reconoce las obras originales y creativas hechas por estudiantes de grado como punto álgido de su proyecto y sus logros durante el semestre, y se lleva a cabo todos los años en primavera. También destaca el papel vital del profesorado a la hora de tutorizar a los alumnos en sus campos académicos y profesionales.

La participación del alumnado comportará las siguientes ventajas: preparará a los alumnos para sus estudios de posgrado, para experiencias de aprendizaje de gran impacto, para recopilar y crear nuevo conocimiento, para aprender métodos sobre el terreno, para explorar nuevas formas de pensamiento, para participar en el diálogo profesional de su campo, para el crecimiento académico, para becas y empleos, para ganar autoconfianza y para el desarrollo profesional.

El problema es conseguir un equilibrio entre la necesidad de que los visitantes disfruten y el papel educativo de la participación en la exposición anual y el aprendizaje. El cambio en las prácticas expositivas desde la presentación de contenido a la implicación de los visitantes y el aprendizaje pone de relieve la importancia de tener en cuenta técnicas de diseño para lograr una comunicación efectiva y proporcionar valor al proceso educativo.

La pregunta entonces es cómo evaluar el éxito en la transmisión de la información requerida.

En los escenarios de las exposiciones anuales, estos problemas básicos de representación e interpretación se integran en el diseño como una consideración principal para el aprendizaje óptimo.

Además, cada exposición anual debe satisfacer las demandas de un público muy variado de diferentes edades, niveles educativos y experiencias, cada uno con su propio enfoque respectivo para la creación de significado.

Las exposiciones anuales reconocen el valor del diseño y cada vez con más frecuencia adoptan más tácticas de diseño para atraer visitantes y, como resultado, impulsar el aprendizaje.

En términos de la implementación de la visión educativa, he encontrado numerosas formas en las que alumnos y visitantes se involucran con el concepto de las perspectivas en función de las observaciones de dichos visitantes y de las entrevistas en este caso. A diferencia del entorno de una exposición normal, una exposición anual proporciona un rango más amplio de opciones para explorar los temas artísticos que se presentan. Los elementos interactivos empleados pueden brindar puntos de referencia

cognitivos que permitan a visitantes y alumnos combinar el contenido de la exposición con sus propios descubrimientos siempre que el equipo de diseño tenga presentes los objetivos de aprendizaje.

La capacidad de aprender es uno de los aspectos más importantes de la educación universitaria. En las universidades, el aprendizaje tiene lugar en diversos lugares, lo que exige la existencia de distintos tipos de espacio para actividades diferentes, especialmente las salas de exposiciones de las que se habla en esta tesis.

Aprender en espacios de aprendizaje informales se ha vuelto cada vez más importante debido a las nuevas tendencias pedagógicas en las instituciones de educación superior, en especial en las universidades.

La contribución de esta tesis ha sido identificar el valor de las exposiciones anuales de los estudiantes a la teoría de la educación superior y a la propia universidad para apreciar las obras de los estudiantes en el área de la «educación informal», así como obtener más apoyos morales y materiales para las próximas exposiciones.

Esta tesis pone en primer plano la rica experiencia sensorial de los visitantes a una exposición anual de alumnos en términos de diseño del espacio, luz, visibilidad, sonido, tecnologías y tipos de movimiento. Distintas actividades informales de aprendizaje poseen distintas cualidades, al igual que las experiencias incorporadas, mediante el trabajo en grupo del alumnado, consisten en buscar el compañerismo para apoyarse mutuamente como «aprendizaje entre iguales» y generalmente alumnos y profesores participan de forma activa en la construcción de este entorno de aprendizaje informal; Pink (2015).

Dichos ambientes surgen de la colaboración entre todos los implicados de los Departamentos de Arquitectura, de Diseño de Interiores, de Diseño Gráfico y de Animación, y de la conexión social. Los espacios interiores los diseñan y los gestionan profesionales como arquitectos y diseñadores gráficos y de interiores, pero, crucialmente, las distintas atmósferas en las que se produce el aprendizaje informal también son creadas de forma activa por los alumnos mediante sus elecciones.

Los departamentos deben proporcionar espacios para el aprendizaje informal que contengan un rango amplio de actividades. Como resultado, debemos ser conscientes de cómo se usa el espacio para transmitir mensajes didácticos de manera involuntaria; Costello (2000).

Por último, he logrado encontrar los protocolos exactos para diseñar exposiciones anuales en base a muchas revisiones de la literatura de las exposiciones anuales de otras universidades de distintos países y he conseguido resumir hallazgos y contribuciones muy convincentes.

Son necesarias investigaciones posteriores para crear una imagen del diseño sensorial de exposiciones anuales de estudiantes y cómo estas moldearán la esencia de las experiencias didácticas posteriormente; un enfoque productivo a este respecto sería aumentar el uso de los métodos de diseño sensoriales.

SUMMARY OF THE RESEARCH

The annual exhibition design encompasses a variety of topics at various phases, including planning and design of the exhibition. Exhibition design tends to use aesthetic experience and awareness as a design principle to produce an integrated design that balances functionality with aesthetics by giving varying degrees of visual beauty.

From the perspective of the design scope, the aesthetic-creating approaches of exhibition design are built on and supplemented by the primary demands of human beings. Therefore, today's exhibition's design should emphasize visual appeal of the space as well as the exhibited works.

Exhibition design is completely linked to aesthetic design as a type of design and it is no longer offered with such a straightforward description, given that audiences' aesthetic awareness has drastically altered and that, exhibition design has achieved significant development.

The aim of this research is to identify effective foundation to design student's annual exhibitions by enhancing the role of interior design with all its tangible and intangible elements, considering the audiences with all of differences, and to give a clear vision for those who are carrying this mission for future, keeping in mind the interrelationship with the learning pedagogy on higher education and universities especially in the design faculties, to reach a point that this annual exhibitions should be treated according to real outcomes hoping to reach the ultimate goals in any institution. This research was built on real practice with the help of quantitative and qualitative methods in collecting and analysis data.

From a quantitative and qualitative analysis of this research, it can be concluded that aesthetic values of the space and visitors perception, behavior, experience, and engagement are important factors to consider when designing and targeting social interaction. The results indicate that this success is a collaboration between different parties, starting from the higher education institution to the university role down to the faculty and its annual exhibition team and their students, it is really distinguished success and should be an example to follow.

The research is subject to some limitations, such as, due to Coronavirus student annual exhibitions were cancelled for almost two years which caused a gap in studying the exhibition patterns, in addition, to the limited interaction between students and their productions; also, the most difficult thing for the design team was translating artistic concepts from the art studio atmosphere into experiences in immersive and fascinating exhibits. Another limitation was the

ability to access the exhibition's technical plans. One additional limitation was that unfortunately, visitors tend to focus more on the display works rather than appreciating the beauty of the physical space and its aesthetics.

Moreover, is that the concept of annual exhibition considered as one time celebration rather than as an ongoing learning process. Future studies could further explore these topics in more depth to gain a more comprehensive understanding of their effects on visitors satisfaction.

In conclusion, this research has successfully answered the primary research questions like: to what extent does the content of an annual exhibit's creation impact the audience's experience? What is the audience's nature? To what extent does an exhibit's changing surroundings influence the audience's experience? why should exhibitions even be considered as research rather than a forum to present and share the results of research? How might environmental psychology be used in contemporary interior design? Are challenges solved by designers? what makes your topic and display special? And what structure you will use to exhibit the selected objects and demonstrate your concept or theme most clearly? what curatorial practices should look like in the future to reach the successful protocols for designing student's annual exhibitions?

Annual exhibitions create a setting where visitors and students can come with the purpose of engaging in a social learning experience while being engaged by activities. As a result, the goal of display should be to provide intelligently crafted learning experiences rather than teaching, Curiosity, observation, and activity are used to initiate and process learning.

According to this research, there was four main purpose: first, enhancing visual consistency, since it is a critical factor in strengthening human eyesight and has a huge influence on how humans interpret the world of interior design, this was achieved in this research by focusing and analyzing space, form, color, quality of light produced, and technologies used at annual exhibition hall which makes it possible and easier for visitors to understand student’s work without any disturbances.

Second, upgrading the annual exhibition's visual appearance which allows visitors to carry out their tasks in a quiet, pleasant, comfortable, and straightforward manner. This was achieved by allowing visitors to feel more comfortable with using devices, moving around the exhibition hall, speaking with students and staff, and attending seminars. In addition, questionnaires and surveys were done to obtain their feedback and identify their satisfaction levels. This visual appearance was also discussed in my thesis in many parts, accessing that visual beauty of

annual exhibition can be successfully achieved through creative concepts and interior design details that added extra flavor to the exhibits.

Third, transmitting show information to visitors, so the efficient distribution of display information is one of the most significant aspects of exhibition design, this purpose was accomplished by the great efforts of the crucial works and the staff of the faculty and their students, where there were a huge number of ideas, concepts, and themes which were conducted through exercises and projects given to students to make sure about the quantity and quality of information we want it to be transmit to visitors, and its strong relationship to the title and idea of our exhibition.

Fourth, achieving aesthetic values, harmony, unity, and purity by combining a specific feeling and language with a specific intervention. This is my ultimate purpose due to the fact that exhibition design is completely linked to aesthetic values as a type of design and it is no longer offered with such a straightforward description rather than it’s a language, process, and the psychology of the design exhibition. Hoping that our visitors will be able to appreciate the beauty of physical space and it’s aesthetics. As a result, exhibition design emphasizes visual appeal of the space design as well as the exhibited works at the same time.

Learning and teaching approaches in design education strive to strike a balance between the creative process and a critical understanding of more objective criteria in the creation of a concept.

The atelier technique of working, which incorporates the "watch me and learn from me” principle. Finnigan and Richards, (2016). As a result, it is critical to establish trust with the student group to ensure that the students discover their voice. Students should be allowed to include their own personalities in their work. Some people, however, find this more difficult than others.

Art and Design educators need to be aware of the power they have in encouraging or discouraging students to develop their own practice.

A human aspect is involved in the annual exhibition of higher education effectiveness. The visitor's level of attention, comprehension, and behavior response to numerous aspects of the exhibition merge into a single entity that cannot be separated.

In the current day, information components serve as more than just items that identify information; they also serve as a narrative that tells a tale and as aesthetically beautiful pieces that enhance the exhibition space.

This event recognizes original and creative works made by undergraduate students as the highlight of their project and achievements during the semester and is conducted each spring. It also emphasizes faculty's critical role in giving mentorship to students in their academic and professional fields.

Students' participation will have the following advantages: it will prepare students for graduate school, high impact learning experiences, gathering, and creating new knowledge, learning the methods of the field, exploring new ways of thinking, participating in their field's professional dialogue, academic growth, fellowships, and employment, self-confidence, and career development.

The problem is to strike a balance between visitors' enjoyment needs and the educational role of annual exhibition participation and learning. The shift in exhibition practices from content delivery to visitor engagement and learning emphasizes the importance of considering design techniques in order to accomplish effective communication and provide value to the educational process.

The question then becomes how to assess success in delivering the required information transmission.

In annual exhibition venues, these basic issues of representation and interpretation integrate design as a major consideration for optimal learning.

Furthermore, each annual exhibition must cater to the demands of a highly diverse audience of varying ages, educational levels, and experiences, each with their own distinctive approach to meaning making.

The value of design is recognized by annual exhibitions, which are increasingly adopting design tactics to attract visitors and, as a result, boost learning.

In terms of implementing the educational vision, I've found numerous ways students and visitors engage the concept of perspectives based on visitor observations and interviews in this case. Unlike a regular exhibition setting, however, a yearly display provides a broader range of

options for exploring the artistic topics being presented. The interactives implemented can give cognitive

anchors to enable visitors and students to combine the exhibition content into their own discoveries when the design team maintains the learning goals in mind.

The ability to learn is one of the most important aspects of a university education. At universities learning takes place in a variety of spaces, which require different kinds of space for different activities especially the exhibition halls which we are talking about in this thesis.

Learning at Informal learning spaces has become increasingly important, because of the new trends in pedagogy in higher education institutions and especially universities.

The contribution of this thesis has been to identify the value of student's annual exhibitions to higher education theory and the university itself to appreciate student's works in the area of “Informal learning”, and to get more moral and material supports for the next exhibitions.

This thesis brings to the foreground the rich sensory experience of visitors to student's annual exhibition, in terms of space design, light, visibility, sound, technologies, and movement types etc. Different informal learning activities have different qualities as embodied experiences, through student's group work, it is about finding companionship to support each other as "peer learning", usually students and staff are active in constructing this informal learning environment. Pink, (2015).

Such atmospheres arise from the collaboration between all partners from architecture, interior design, graphic design, animation departments and social connection. Interior spaces are designed and managed by professionals like architects, interiors and graphic designers, but critically the different atmospheres within which informal learning occurs are also actively created by students through their choices.

Departments must provide spaces for informal learning that contain a wide range of activities. As a result, we must be aware of how space is used to convey didactic messages unintentionally. Costello, (2000).

Finally, I successfully managed to find the exact protocols for designing annual exhibitions based on many literature reviews of other universities annual exhibitions in different countries and sum up very convincing findings and contributions.

Further research is needed to build up a picture of the sensory design of student's annual exhibitions, and how these will shape the essence of the didactic experiences later, and a productive approach would be greater use of sensory design methods.

Muna Marwan Mahmoud Ansari

CHAPTER 1: Overview

In this chapter, the thesis topic is introduced, followed by an overview of the thesis structure, which is outlined in descriptions of each chapter.

The chapter identifies the thesis objectives, methodology, limitations, and organization of the content.

1. INTRODUCTION

1.1 Background

Exhibits have featured design since the eighteenth century. The concept of showing design has been a problem for designers and curators. As a result of this paradox, shows with design have transformed the traditional fine arts presentation by changing into narrative systems utilizing a variety of mediums. As a result, contemporary shows require more audience involvement, but they must adhere to traditional exhibition space characteristics. According to this study, different types of exhibition venues play a vital impact in the layout of the exhibition's components as well as the visitor's experience.

This study looks at the fundamental factors that determine the composition and perception of a modern exhibition, as well as how and why the experience vary in different types of exhibition spaces and how it affects the story of an interior design exhibition. This can be done by looking at the interrelationships between the stated components: exhibition space, display elements, and visitor interactions. Exhibitions are dynamic displays that express ideas, allow viewers to view items, and stimulate the senses.

During the past twenty-six years, I had the honor of working with a group of my colleagues in preparing, installing, and designing many student exhibitions for the Faculty of Architecture and Design at the University of Petra.
These experiences formed a wide range of my practical and theoretical experiences
It paved the way for me to find appropriate solutions to many challenges and difficulties. In addition, it made me passionate and increased my aspirations in designing student annual exhibitions.

1.2 Objectives

Many people have gone to displays to view interactive artwork up close. Visual perception fuels curiosity, admiration, and passion for handmade products. Factors such as illumination, color, and material influence vision perception, according to these facts this dissertation main objectives will be:

First, enhancing visual consistency, since it is a critical factor in strengthening human eyesight and has a huge influence on how humans interpret the world of interior design. The form, color, and quality of light produced in any place or environment are considered by visibility. Second

purpose, upgrading the annual exhibition's visual appearance to allow visitors to carry out their tasks in a quiet, pleasant, comfortable, and straightforward manner.

The third purpose of designing the annual exhibition is to effectively transmit show information to visitors, so the efficient distribution of display information is one of the most significant aspects of the annual exhibition.

Fourth, the exhibition's main purpose is to achieve aesthetic values, harmony, unity, and purity by combining a specific feeling and language with a specific intervention which leeds to creating a protocol for designing annual exhibitions. See figure 1-1.

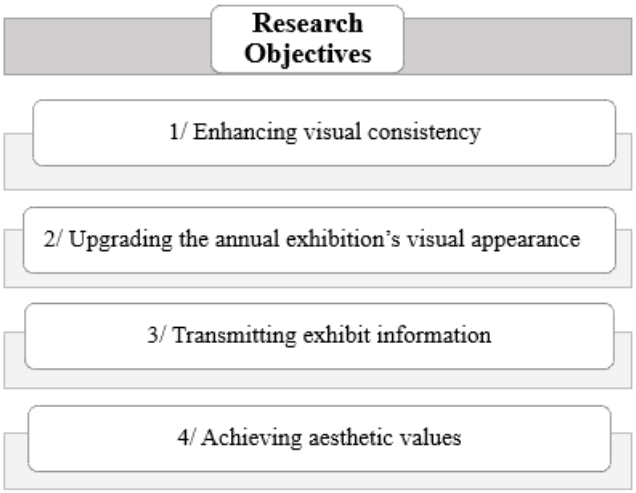


Figure 1-1: Indicates the main objectives of this dissertation

1.3 Methodology

The research consisted of the distribution of a qualitative and quantitative analysis using a case study: the annual exhibition of the Petra University in Amman-Jordan, first by analyze the grammar of exhibition design through the lens of interior design, aesthetics, and visitor studies to create a protocol for creating annual exhibition for higher education.

This thesis will summarize the intentions and analyze the results of this research, which will be centered on the annual exhibits of the University of Petra in Amman- Jordan (UOP).

The goal of one field was to create a neutral exhibition space that would not distract from the student's hand products, while the goal of the other field was to rethink display aesthetics and put them to the test through focus groups and surveys to qualify and quantify the results to answer the question: to what extent does the content of an annual exhibit's creation impact the audience's experience?

For this goal, using both qualitative and quantitative analysis methodologies to analyze a more genuine link between visitors and artworks could assist strengthen the story of the approach to audience engagement, and to designing annual exhibitions.

Using theories of visitor perception, audience engagement, unique curatorial practices, and exhibition design, this study discusses the research undertaken to identify which approaches and indoor alterations effect the visitor's relationship with exhibition design.

This research investigates how to create an interactive annual exhibition and the learning experiences that distinguish it from other exhibits.

This would be accomplished by studying the interrelationships between the listed components: exhibition space, display elements, and visitor contact.

The impact of interior designers on the ability to engage an audience with the items on display is investigated in this study, which employs aesthetics and impact as curatorial and exhibition methodologies.

1.4 Limitation

The limitations of this study summarized in four main points:

Firstly, during the Corona pandemic the annual exhibitions were cancelled for almost two years which caused a gap in studying the exhibition patterns. In addition, there was limited interaction between students and their productions.

The most difficult thing for the design team was translating artistic concepts from the art studio atmosphere into experiences in immersive exhibits.

Another limitation was the ability to access the exhibition's technical plans. Also, one additional limitation was that unfortunately, visitors tend to focus more on the display works as a (visual sense) rather than appreciating the beauty of the physical space and its aesthetics.

Another limitation to be concerned is that the concept of annual exhibition considered as one time celebration rather than as an ongoing learning process, also, as any course the student takes during his/her educational journey, annual exhibition does not have or reflects any outcomes such as: knowledge and understanding, intellectual skills, general and transferable skills, and professional and practical skills.

1.5 Content Organization

The Content Organization part of this dissertation consists of seven chapters:

In Chapter 1: Introduces the Dissertation by Presenting:

The background, objectives, methodology, limitation, and content organization.

PART I. REFERENTIAL FRAMEWORK.

In Chapter 2: FORMATS: Exhibition as method for higher education:

Annual exhibition in higher education, annual exhibition educational value.

In Chapter 3: AGENTS: Turns the Focus toward the Impact on Visitors and Students as users: visitor behavior, visitor perception, visitor engagement, visitor experience.

In Chapter 4: STRATEGIES: Presents the Exhibition Design as Interior Design: design process, typology analysis of exhibition elements, aesthetical values.

PART II. PRACTICAL APPLICATIONS.

In Chapter 5: CASE STUDY: Is My Practical Experience of Annual Exhibition: Petra University Amman-Jordan as a case study.

In Chapter 6: **PROTOCOL:** Is the findings by enhancing the protocol for creating annual exhibition: reviewing tested theory as indicators of success, designer's role.

In Chapter 7: Is the conclusion that presents my contributions and recommendations for further research.

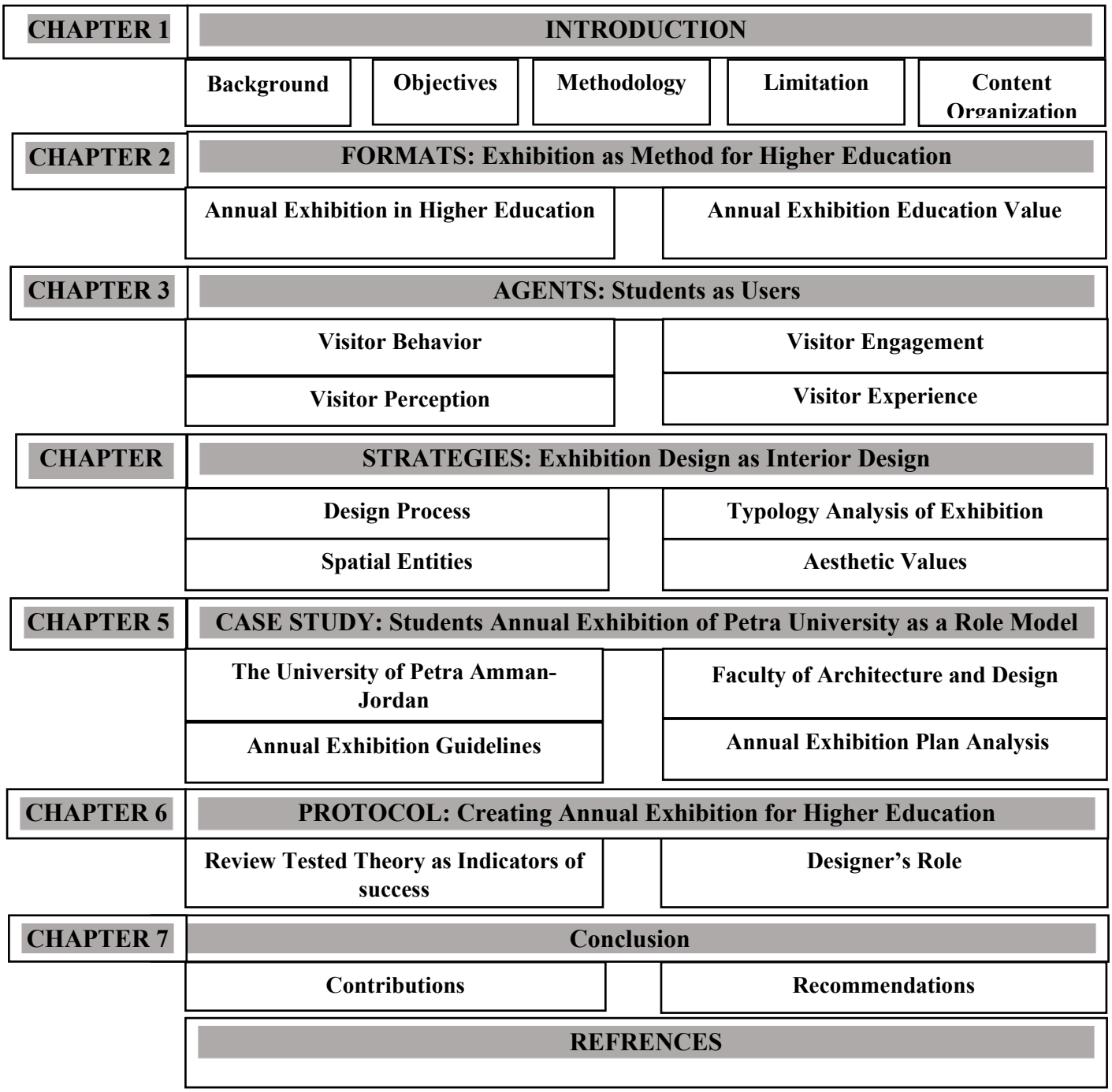


Figure 1-2: Indicates the Content Organization of this dissertation

PART I. REFERENTIAL FRAMEWORK

CHAPTER 2: Overview

This chapter is framed around the discussion of learning pedagogy in Higher Education at Universities especially in the design faculties.

As part of this chapter, we will also discuss the notion of learning and teaching approaches in design education, strive to strike a balance between the creative process and a critical understanding of more objective criteria in the creation of concept. In addition, the importance of the word “internationalization” has recently become a buzzing word in higher education.

PART I. REFERENTIAL FRAMEWORK

2. FORMATS: Exhibitions as Method for Higher Education:

In higher education (HE), exhibition refers to projects, products, and 2D or 3D presentations in which students 'display' what they have learned during the two semesters, and usually as a means of demonstrating whether and to what degree they have achieved expected learning standards or learning objectives for the subject. An exhibition is usually an educational experience that happens annually and a means of assessing the academic progress and achievement of the college in particular and the university in general.

Higher education has a moral purpose: to make a positive difference to students' lives. As higher education is intended to enable students to achieve their full potential, a key component of that development should be to enable students to be creative. Fullan, (2003: P.18).

Higher education curriculums encourage compliance and conformity and often severely restrict the freedom to express oneself due to the academic norms of self-expression. As a result, if we are to nurture learners' creativity, our academic curriculum must be more expansive than the traditional one. Jackson, (2008).

In universities, student exhibitions are more than materials, projects, or paintings that fill a room for the annual exhibition; they reflect students' academic lives. It is considered by professors as a means of developing students' skills and giving them practical life experience, from organizing the exhibition to evaluating the results. They can explore another world away from the lecture hall, study, and take the exam at the end of the year. Their achievement from the exhibition, and the answers they obtain with success or failure.

Student exhibitions contribute to guiding students and developing their aesthetic abilities. They are a means of acquiring values, training students on some skills and habits, providing them with some information and concepts, and gaining them some attitudes and inclinations through practicing and enjoying works of art.

These exhibitions emphasize the importance of the arts and their great role in encouraging and refining talent, creating a spirit of creativity, and competing to develop and advance art in general, and the visual arts in particular.

Student exhibitions are usually designed to encourage students to think critically, solve difficult problems, develop skills such as oral communication, public speaking, research, teamwork,

planning, self-sufficiency, goal setting, expanding social relationships or technological knowledge.

Exhibitions may also encourage students to relate their projects to community issues or problems, or incorporate learning experiences outside the university, including activities such as interviews, scientific notes, or internships.

Learning can happen anywhere, at any time, and is influenced by the person's physical environment, social interactions, personal beliefs, prior knowledge, and attitudes. See figure 2-1. Learners want to feel in charge of their activities, to put concepts to the test through experiments, to ask questions, to interact with others, and to seek out new information. Annual exhibitions at universities, especially when students' work is displayed, create a setting where visitors and students can come with the purpose of engaging in a social learning experience while being engaged by activities. As a result, the goal of display should be to provide intelligently crafted learning experiences rather than teaching.

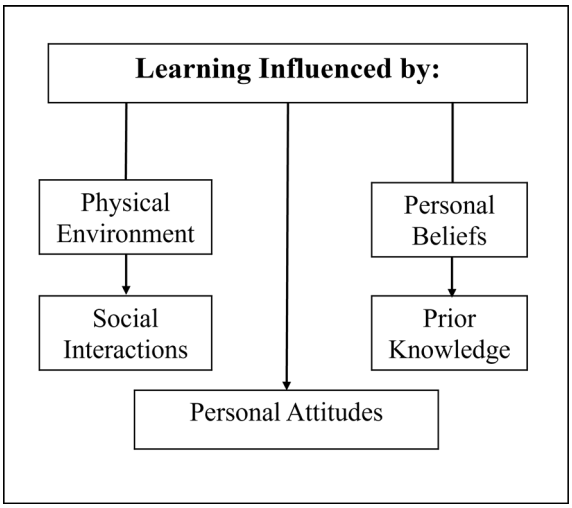


Figure 2-1: Summary of learning influences

Visitors anticipate an entertaining and intrinsically motivating experience that includes learning when they visit an exhibition. Curiosity, observation, and activity are used to initiate and process learning. Because much of this learning is not measured or quantified in any formal case, most people are unaware of it. Because of its constant, ongoing nature and motivating active engagement without definite assessable objectives, it is difficult to identify the outcomes of informal learning.

The environment influences affective, cognitive, and behavioral responses, and these responses can be shaped by design cues in the educational environment. According to this dissertation, the environment influences affective, cognitive, and behavioral responses.

Learning and teaching approaches in design education strive to strike a balance between the creative process and a critical understanding of more objective criteria in the creation of a concept. In its conception and development, each design output tends to be original, non-repetitive, and immanent.

The utilization of the studio as a hub for an interactive approach to teaching and learning is one of the defining elements of Art, Design, and Architecture (ADA) education. Creating opportunities such as exhibitions also create opportunities to communicate student's work beyond the institutional site, even abroad. Because 'internationalization' has become a buzzword in higher education, it has also become a major research topic. Brown, (2000) termed internationalization as a "wooly idea," and it appears that over a decade later, many working in higher education still have various perspectives on it. Jones & Wit, (2012).

'If we want to internationalize the institution, we have to internationalize the faculty,' said Stohl, (2007:368). However, as Leask, (2013:104) points out, many academics are unsure of what internationalization entails and/or do not believe it affects them. This is due to a lack of contact with international ideas in various disciplines. Bartell, (2003), as well as a small number of international students.

To internationalize the curriculum in higher education, Harley et al., (2008: 168) proposed that a "Third Space": a generative, incorporative, dynamic, experimental space of mutuality and interchange' is required. Students learn to interact, critique, and respond to criticism, and collaborate in the studio, which is an essentially social area. This setting, according to Akalin and Sezal, (2009:16), fosters students' development as they struggle with the ambiguity inherent in their courses.

The studio model has its detractors, at least in part because of the high demands it places on universities for space and staff time. However, it is also true that a studio learning experience is about more than the physical space, and that the tutor's facilitation skills have a significant impact on the amount of learning that occurs there. Orr, Yorke, & Blair, (2014).

Terry Richards and Aisha Finnigan, (2016: 4) argued that art and design 'already compensates for difference' and has many of the hallmarks of an inclusive pedagogy, using the studio as a

learning environment and project-based learning. While not a cure, the studio space has the ability to encapsulate the features of a 'Third Space,' thanks to the communicative, open discussion that may occur there.

Students see the studio as a place where they can engage in divergent learning, self-direction, and the exploration of new possibilities. As a result, one may argue that art and design already caters to diversity and concentrates on identity work. Co-production and co-construction are important to the students' understanding of Art and Design teaching.

Students regard themselves as experts in their fields and seek feedback from professors in order to improve or expand their work. However, when group sizes grow and studio settings become more diverse, delivering individual learning feedback becomes more difficult. The atelier technique of working, which incorporates the "watch me and learn from me" principle". Finnigan and Richards, (2016).

As a result, it is critical to establish trust with the student group in order to ensure that the students discover their voice. The tutor's involvement is crucial in this situation. If students' primary duty is to conceptualize and create work, and the work created is emotional, then relationships with tutors are critical to its growth. Students may occasionally disagree with their teachers' aesthetic sense, which may be linked to their own identity. Sabri, (2014). Students should be allowed to include their own personalities in their work. Some people, however, find this more difficult than others.

Identity reflection is frequently considered to be something that art and design excel at. "That is what we do," said staff members frequently. "We offer spaces for pupils to explore their identities and take a very student-centered approach." If students disagree with the tutor's aesthetic, they generally abandon their own ideas and accept the tutor's instructions, according to Sabri, (2015).

This viewpoint is represented in the student voice initiative 'Tell Us About It,' where students highlighted the ability to explore personal identity in the creative process as a vital strategy for success. This could make a difference in the creation of more risky and experimental work. Art and Design educators need to be aware of the power they have in encouraging or discouraging students to develop their own practice. They often talk about students coming out of their comfort zone and thinking about exploring something that is not so close to their own personal identity. Hatton, (2015).

The 'group crit' is a common assessment method used in the field of art and design (group critique). In this case, the feedback will most likely be given in an emotionally charged face-to-face encounter in front of an audience, where verbal criticism, both critical and positive, will be given. Day, (2013). This is not the case in other subject areas, where students are more likely to receive evaluation in writing and on an individual basis.

Learning design is a design model based on the informed learning paradigm that recognizes that students' learning outcomes are influenced at least in part by how they experience information throughout the learning process. During the learning process, an instructor develops learning goals and creates an environment that allows for a variety of information experiences. The model is based on the variation theory of learning, which states that any given phenomena can be viewed in a variety of ways, and that a student's experience develops as they are exposed to more of these variations., Gorichanaz, (2020, p.57).

According to this study, there are nine aspects to consider:

- The importance of creatively listening to students' voices in order to effect change.
- Why encouraging students to create something that reflects their Art and Design learning experience is transformative.
- The pieces can be utilized in workshops or as part of a student display, and the tactile approach encourages deep observation and questioning.
- Why Keeping these student items in the archive makes them valuable and long-lasting as real-life models for future students.
- Giving pupils a sense of control over their surroundings motivates them to spend more time in the classroom.
- Creating a venue for staff to mingle and meet is critical.
- Having regular meetings between student groups and staff to discuss and resolve difficulties, as well as provide feedback on positive developments, is extremely beneficial.
- Because they have come to trust each other and feel safe enough to take risks in their creative practice, students are sharing their work more and expressing critique more readily.
- Increasing student visibility by showcasing awards, events, and best practices that can encourage others.

2.1 Annual Exhibition in Higher Education.

In higher education, inclusive learning and teaching refers to the manner in which pedagogy, curricula, and assessment are planned and delivered to engage students in meaningful, relevant, and accessible learning. It promotes an understanding of the individual differences as a source of diversity that can benefit others' lives and learning.

The higher education community is becoming increasingly committed to providing learning-centered settings in which teachers and staff actively assist students in learning, and student learning evaluation is critical to understanding and measuring the success of these efforts. Suskie, (2018, p.1-2).

Higher education providers are responsible for involving legislative and other regulatory requirements. In planning, delivering, and assessing courses, providers may need to consider other reference points in addition to this statement. QAA, (2019). To transform higher education, we need to raise training and awareness at all levels, both individually and as a system. Brown, Desai, and Elliott, (2019).

The main objectives of innovations in higher education according to teaching and learning curriculums are to:

- Demonstrate how innovative teaching and learning approaches are being implemented in higher education institutions all around the world, in a variety of fields and nations.
- Educators should evaluate the most recent models, theories, concepts, paradigms, and frameworks when adopting, implementing, measuring, and evaluating new teaching and learning techniques.
- Think about how theory and practice affect policy, strategy, and leadership.
- Enhance, change, or improve the teaching-learning environment.
- Enhance instructional methods that lead to better educational and learning results.
- This series will appeal to anybody participating in the teaching and learning process in higher education, regardless of discipline, institution type, or nationality. Blessinger, Sengupta, and Makhanya are the authors of this book, (2020, p. ix).

A human aspect is involved in the annual exhibition of higher education effectiveness. The visitor's level of attention, comprehension, and behavior response to numerous aspects of the exhibition merge into a single entity that cannot be separated. Agusta and Ramadin, (2015).

The complication of the concept, facts, and information, as well as the visitor's sensation, all contribute to the educational exhibition's complexity. All these concepts are condensed into an easy-to-understand and entertaining manner. As a result, information components play a vital role in higher education exhibitions as the primary entity that visitors must comprehend.

Currently, information components serve as more than just items that identify information; they also serve as a narrative that tells a tale and as aesthetically beautiful pieces that enhance the exhibition space.

One of the different information media that is often used in higher education exhibitions is the infographic, which is a sort of modern information design. The goal of this project is to investigate the impact of infographics as a visual presentation of information component in the exhibition space on visitor interest, comprehension, and behavior.

The time an audience takes to interpret the infographics is a key element to consider. The length of time it takes to interpret the data visualization is mostly determined by its complexity and level of detail. It's also influenced by the audience's capacity to look at both sides of the data and figure out what's going on. Fast thinking visualization and slow thinking visualization are two forms of visual styles that operate as visual appeal in infographics.

Fast-thinking visualizations have a short message that can frequently be described in a graphics title and require the viewer to scan it within only a few seconds. It offers few or no opportunities to learn more or expand on the information presented.

Slow-thinking imagery, according to its proponents, expects more from its audience. It might range from more advanced or new methods of data visualization to elaborate; high-density information displays with a lot of features. Furthermore, it draws far more attention than usual, encouraging the observer to investigate the facts. See figure 2-2.

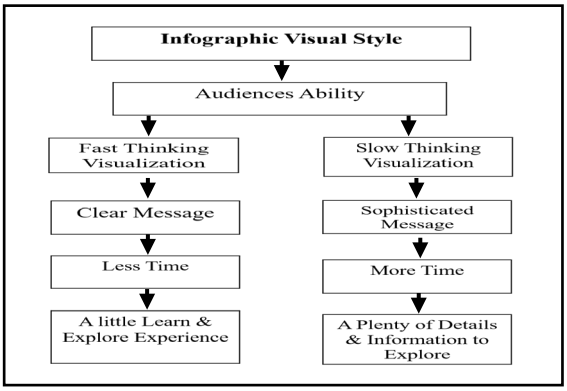


Figure 2-2: Categorization of infographic visual style.

2.2 Annual Exhibition Educational Value.

This event recognizes original and creative works made by undergraduate students as the highlight of their project and achievements during the semester and is conducted each spring. It also emphasizes faculty's critical role in giving mentorship to students in their academic and professional fields.

Students can build relationships with faculty mentors, improve their resumes, and become more competitive when applying to graduate school.

A wide range of activities and methods are represented in the exhibitions and performances. Individual and group efforts are represented in the presentations, which include projects completed outside of the course requirements as well as projects that demonstrate the follow up of unique work in the classroom.

Students' participation will have the following advantages: it will prepare students for graduate school, high impact learning experiences, gathering, and creating new knowledge, learning the methods of the field, exploring new ways of thinking, participating in their field's professional dialogue, academic growth, fellowships, and employment, self-confidence, and career development.

The problem is to strike a balance between visitors' enjoyment needs and the educational role of annual exhibition participation and learning. The shift in exhibition practices from content delivery to visitor engagement and learning emphasizes the importance of considering design techniques in order to accomplish effective communication and provide value to the educational process.

The question then becomes how to assess success in delivering the required information transmission.

In annual exhibition venues, these basic issues of representation and interpretation integrate design as a major consideration for optimal learning.

Furthermore, each annual exhibition must cater to the demands of a highly diverse audience of varying ages, educational levels, and experiences, each with their own distinctive approach to meaning making.

Designers play an important role in creating appropriate, engaging settings that appeal to visitors and improve learning effectiveness. Kelly, (2015). Although design will have a good impact on learning, it is not always possible to apply design knowledge in every application, as many public learning venues are created by people who are not design educated. In addition, the consequences will vary depending on the communication's goals and the degree to which the learner's ability to absorb and analyze the information is taken into account.

Annual exhibitions are places where people can learn both formally and informally. In exhibition spaces, several types of reflection on types of learning are available. See figure 2-3.

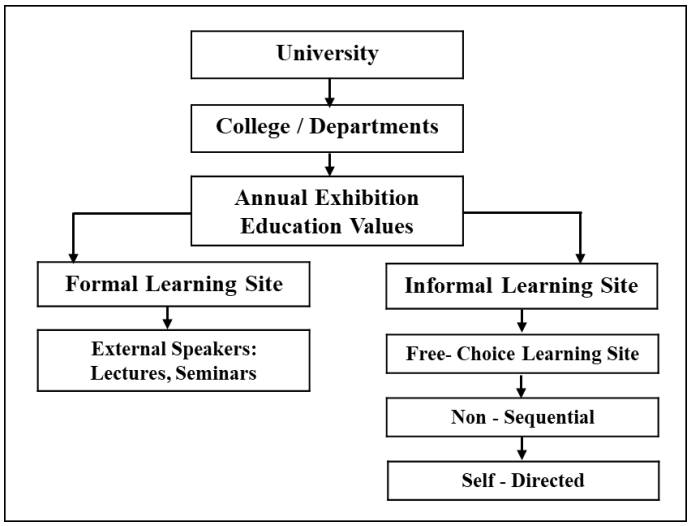


Figure 2-3: Types of learning available in annual exhibition

Individuals spend choice and control over their learning through free-choice learning, which is generally non-sequential, self-directed, and voluntary. In the context of an annual exhibition, both the definitions of informal learning and free-choice learning are applicable since scenarios are set up for visitors to investigate and engage with new knowledge at their space in both an informal and free-choice type.

The value of design is recognized by annual exhibitions, which are increasingly adopting design tactics to attract visitors and, as a result, boost learning.

In terms of implementing the educational vision, I've found numerous ways students and visitors engage the concept of perspectives based on visitor observations and interviews in this case. Unlike a regular exhibition setting, however, a yearly display provides a broader range of options for exploring the artistic topics being presented.

The interactives implemented can give cognitive anchors to enable visitors and students to combine the exhibition content into their own discoveries when the design team maintains the learning goals in mind.

2.2.1 Peer Learning

We wanted to create spaces that celebrated our students' strengths by making the annual exhibition a week where students and staff can take a "break" from teaching so that we can provide students with a broader range of educational and social experiences while also enhancing their personal development and study skills in such creative and engaging ways that aim to improve student self-efficacy, self-confidence, and peer learning.

"Peer learning support is beneficial not just because "peers" by definition are similar in age, aptitude, status, traditionality, and other qualities, but also because it promotes dialogic and social learning," says the author Wenger, (2009, 2010).

Peers played an important part in students' development as activists in college, but their influence did not always operate in the manner that students expected. Peers tended to assist student activists in reconsidering or refining their worldviews, deepening their sociopolitical commitments, and sustaining the risky and emotionally draining job they were doing. Depending on the role they serve, these ties have proven useful in amassing collective knowledge, mobilizing large groups of people for acts, building power via numbers, and dispersing burdens. Conner is a fictional character, (2020, p. 90-91).

Peer learning also demonstrates that education can be democratic and liberating. Peer learning, according to Keenan, (2014), fosters a sense of belonging and community, which helps to improve student learning and experience, as well as student relationships, advancement, and achievement. "Learning may be regarded as how we manage a spectrum of processes of development that oscillate between the individual and the collective, for non-traditional students this is a site of judgement and exclusion," says one student Wenger-Trayner, (2014) Showing work to peers and in the public realm is an important pedagogic technique in art and design classes. The utilization of digital platforms, group peer critique, interim exhibits, and graduate show exhibitions are all examples of this. It allows students to share their work with a larger audience, participate in public/peer critique, and put their work in a professional setting.

We wanted our students to understand themselves as actively learning and learning as becoming: a realignment of competence and experience, socially defined, individually experienced, and cooperatively communicated. The courses are blended in the sense that they combine some direct didactic instruction with active and engaging peer learning, which includes creative and visual learning methodologies as well as participation in the university's annual student exhibition.

We hope that students will participate in all of the activities with power and excitement, and that they will then make learning conscious and successful in a variety of displays and showcases that they will put on for themselves and the larger academic community.

Other students and faculty members were invited to the annual student exhibition, which focused on the university's learning environments. This exhibition took place during the seventh week of the first semester, and it was a significant challenge for first-year students because they had to not only conduct their first pieces of work, but also communicate with students in advanced years. Despite their nerves, they were successful, and their sense of self-efficacy and flexibility grew as a result. This week, we want to provide students with opportunities to do something different and enriching. We wanted to show that, indeed, we can enrich ourselves through social, creative activities, as well as other people's intellectual enrichment. See figure 2-4.

We challenged our students to display their work in unexpected methods, such as free-hand drawings, paintings, cardboard, 2D Auto-Cad and 3D Max drawings, 3D models, animations, movies, and poems. This forced them to think, see, and communicate in new ways.

We recognized that changing our teaching technique can be disturbing for students who are accustomed to the old method of teaching and receiving lectures. "For creativity and invention to happen, students need time," Jackson, (2013) and Jonson, (2010) contend. They require time to be creative, to take risks, and to overcome their fear of failure; they require time to "be with" and learn from one another.

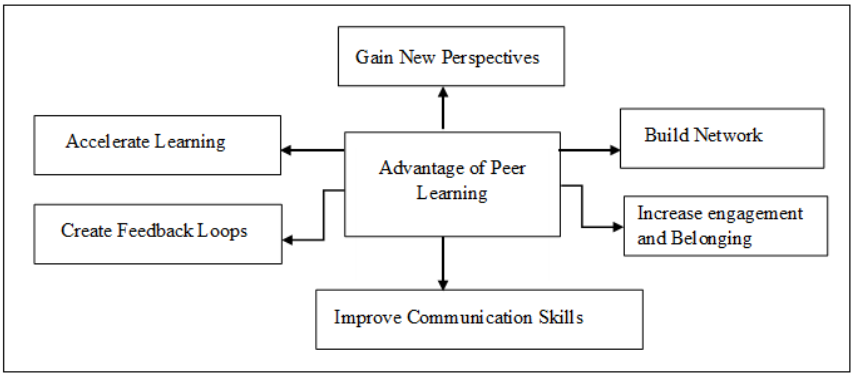


Figure 2-4: Reflects the advantages of peer learning on students

Peer learning has been shown to improve a student's learning and experience. We've seen our students connect more deeply and take more chances as a result of their embedded mentoring experience. Keenan, (2014). "Peer learning is promising since it appears to sustain or boost students' learning with minimal involvement from staff," writes Boud, (2001, p. 5).

The Mentor's function in the exhibition preparation was to act as a helping hand or supporting guide, encouraging, and providing constructive criticism to the students as they tackled this difficult undertaking. Mentors, for example, aided students and persuaded first-year students that they could do it in the exhibition itself. Mentors provided a good and supportive environment for students to celebrate their accomplishments together. This positive "parental" role enhances the enjoyment and pride associated with the annual display accomplishments. See figure 2-5.

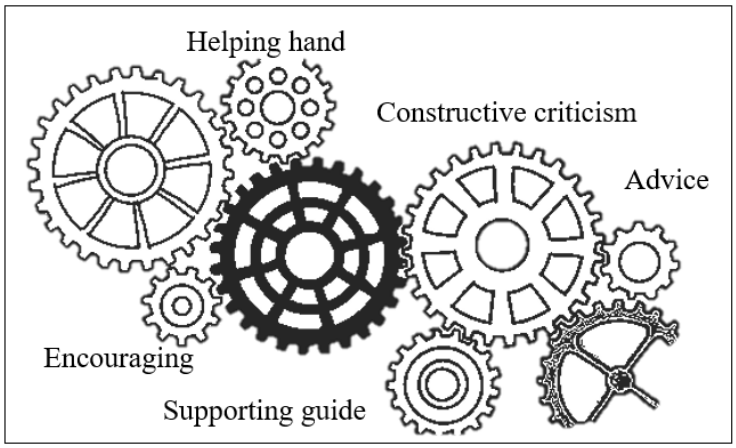


Figure 2-5: Describes mentor's function in the exhibition preparation

On the day of the exhibition, the students arranged themselves in the exhibition areas and placed their displays alongside their names. Students took this process extremely seriously, wandering across the exhibition rooms, closely studying the exhibits, and writing mostly positive feedback. There were also "external" guests, both employees and students, who commented on the work on exhibit and inquired about the participants' exhibit items and personal experiences.

Finally, the modules in question are subjected to an annual assessment and evaluation, with specific items, such as student feedback and achievement, scanned in depth. We want to maintain the intervention drawn in this exhibition because it stimulates cheering and learning, and because it provides students with firm challenges that they can struggle with and at which they can genuinely succeed. The significance of this is that it allows students to reflect on the connections between practice and theory.

2.3 Other Formats:

2.3.1 Blended Space

A blended space is a mixed reality setting of any scale in which the actual and virtual worlds have been thoughtfully combined with some content or access to material. Benyon and Mival, (2012). According to Blast Theory, which was based in Brighton in UK and led by a group of artists: Matt Adams, Ju Row Farr and Nick Tandavanitj, they create interactive art that explores social and political issues, creating new perspectives and opening up possibilities for change, they find out that a blended space is a combination of physical and digital spaces that have been brought together to offer new experiences. Dekker and Miles, (2011).

When blended spaces are well-designed, they bring the real, the mediated, and the virtual together in one space. When blended spaces are well-designed, they are designed at the human scale, where the blend between the physical environment, mediating devices, and digital content not only fits well, but also fits well with the way occupants make sense of them through embodied cognition. See figure 2-6.

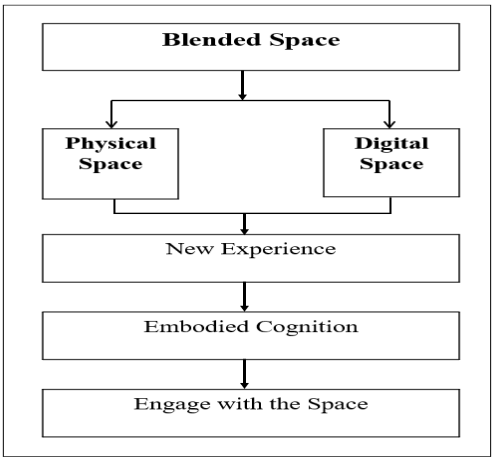


Figure 2-6: Advantages of blended spaces

Designers should see the creation of blended places as a key process, drawing on core human capacities and looking to architecture, interior design, and other physical interaction fields to create experiences.

Human-scale blended places should be created. That is, rather than being driven by technological difficulties, they should be developed with people in mind, utilizing concepts that people understand. Blended space design creates correspondence between real and digital areas so that users may see and experience movement between them.

The multi-layered nature of interaction design should be recognized, from the fundamental levels of rooted sensations to the cognitive interactions required to understand and participate with the environment, as well as the ideas and emotions that they generate.

Designers of the annual exhibition must consider how the various spaces interact, as well as what the conceptual and social spaces are like, and how their designs will affect social connections.

2.3.2 Open Studio

We examine the impact of our position as educators while students are processing their learning experiences using art, based on a reflection on the utilization of the Open Studio setting as a third place in the educational environment.

The relevance of widening the learning interaction to include experiences that contain the risk associated with innovation and change is highlighted by a practice-led investigation of these questions. This is a learning process that can be offered as a contribution to the ongoing

discussion about the unique questions of pedagogy that art educators struggle with when working with students who take advantage of the opportunity to explore outgoing aspects of the annual exhibition identity. It is set within the framework of an emerging conversation between two students. Crane, Byrne, (2020).

In a larger range of circumstances, open studio techniques have become increasingly diverse and common. The open studio approach's major elements squeeze artistic creativity and give the spot and conditions for it, as well as allowing for deep engagement and enough time for the creative process to evolve.

The nature of the place and how it is organized are crucial in creating a welcoming and enabling environment. In a shared context, the focus is on the individual's creative process. Moon, (2016).

Moon investigated the meaning of the term "open" in the context of "open studio," and proposes that this openness can also refer to the facilitation process, in which facilitators are full partners in the annual exhibition's artmaking alongside other students as participants. Moon, (2016).

Students can work at their own speed in an open studio setting, limit their interactions with other students based on their ability, and use the group and space as needed. This method encompasses components of community life in which people live together as well as independently.

According to the literature, the open studio technique is utilized as a cross-platform tool for modeling and analyzing artwork in a variety of social contexts.

The open studio method is also used in educational settings. Heller, (2015) found that participating in an open studio at a school improved children’s thoughtful capacity, empowered them, and elevated their sense of self-efficacy.

The open studio approach has been modified to the individual demands of different students since it has been used in a range of contexts and locations. This diversity, made possible by the approach's adaptability (thus the name "open studio"), emphasizes the significance of further investigation, as well as the identification of shared basic concepts and unique qualities that have emerged from different contexts.

Many studies have demonstrated the importance of artmaking in improving one's quality of life. One study revealed that allowing students to work freely in an open studio-like

environment reinforced good feelings, decreased negativity, and greatly increased self-efficacy. Kaimal and Ray, (2017).

The researcher discovered a positive significant correlation between the student's open studio and life achievement, i.e., it encourages creativity and contributes to a greater sense of social belonging and well-being, as well as an improved quality of life, finding a job after graduation, a greater increase in life achievement than students who only attended the open studio, initiative, and more. See figure 2-7.

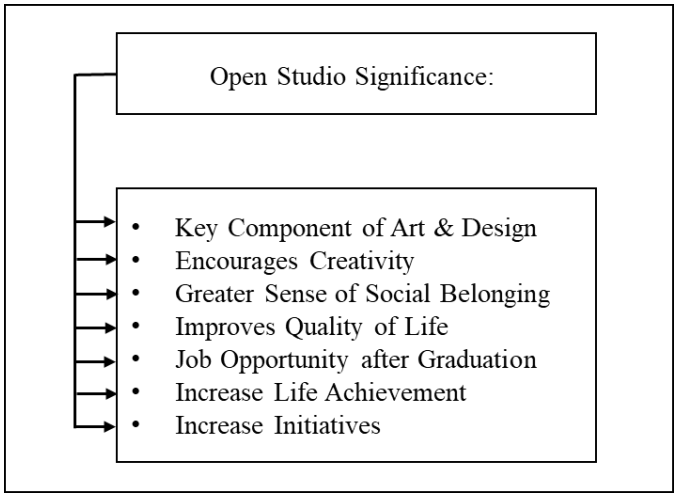


Figure 2-7: Significance of an open studio

Open studio activity is a key component of art and design education, as it provides spaces for both individual and group instruction. Staff and students form a community of practice as partners in the learning process in an effective learning environment. Student presentations, peer group learning, workshops, and group critique are all part of the approach.

The notable role of art and an unrestricted and unmoderated creative process are central to the open studio approach. The curator is in charge of holding the space so that individual students can express themselves in a group environment. The length of the session encourages participation in the creative process; it's also a crucial area with a unique ambiance. Timm-Bottos, (2016).

According to Shapiro, (2014), the open studio is a dynamic entity shaped by the students' special demands, the characteristics of each specific area, and the curators' point of view. It employs two central parts, intention and witnessing, as fundamental mindfulness skills in addition to the creative process. Allen, (2016). She explores into the spiritual dimensions of the open studio, describing an energy or life force that manifests itself through the creative

process and pictures that stand out when one participates in artwork with another person, an action that requires risk and openness to the unknown.

Working in a group is intrinsically smarter, more creative, and resourceful than working alone; also, it represents the empowering support of other students, which will undoubtedly enhance and enrich the learning process in annual displays. Steve Jobs famously says: “Great things in business are never done by one person, they’re done by a team of people”.

The open studio offers a third place in art education, where students use art materials to investigate their own skills and limitations while engaging in a creative process in the presence of others.

This allows individuals to tap into their inner wisdom and practice-based embodied knowledge. Crane and Byrne, (2020).

The open studio is presented as a vital area between academic achievement and the practical experience of annual exhibition practice, in which students are free to take chances and form connections with others to get a new and amazing experience.

2.4 Summary

The expanding relation of education at all levels necessitates the creation of an educational system that is focused on the long-term success of all higher education institutions. The most significant part of futuristic learning is ensuring that the learning activities are designed in a way that is closely tied to educational concepts, curriculum, content, and processes. It is critical to give educational opportunities to learners in an atmosphere that encourages learning through engagement and skill development. Blessinger, Sengupata, and Makhanya, (2020, p.191).

The increase in demand for virtual and physical content, rapid technological advancements, growing public interest in the visual arts and media, and growing awareness of what creativity and innovation can bring in the future are all factors contributing to the growth of art and design higher education. Graduates of art and design programs regularly display remarkable skills, entrepreneurial skills, and the ability to start new businesses.

The pedagogic approach to art and design education is primarily integrative and comprehensive, allowing students to recognize and solve complicated problems by drawing on all of their previous knowledge. Students take on more responsibility for the substance and direction of their creative work as it progresses, culminating in an essential piece of work. Art and design courses frequently deliver curricula through big modules or units of study as a result of this pedagogic strategy.

The difficulty of creating effective, interactive, and informative annual exhibitions has been noted by the researcher, as has the necessity to reinforce classroom educational curricula.

Annual exhibition design techniques show that interactives can give cognitive anchors for students and visitors to interweave the annual exhibition content when the design team maintains the educational purpose in mind.

CHAPTER 3: Overview

This chapter will explain the most relevant visitor's behavior, perception, engagement, and experience at the exhibition hall. Moreover, this chapter will illustrate the visitor's types moving through exhibition space. As well as exploring the most important visitor's concerns while visiting exhibitions. Appendices according to this chapter is at the end of this thesis Including questionnaires:

(A): Students behavioral.

(B): Visitors experience.

3. AGENTS: Students as Users:

When establishing the concept of visitor impact, we must first determine who the visitors are. Will the visitor's age and gender need to be taken into account? Will the show appeal to a broad audience or will it target a certain demographic? To put it another way, who is the intended audience? What is the audience's nature? Is the exhibition primarily aimed towards individuals, couples, or groups? Who are the university students, specialists, and educational groups, which may include schools, in the targeted group?

This will necessitate spaces that can accommodate small groups of people looking to collaborate. They'll need a hierarchical structure of material that appeals to a wide range of age groups and learning skills. Specialist design judgments on height, size, color, and material use will be required for the annual exhibition. Their literacy level and intellectual engagement will be determined by their age group. The use of proper language, font choices, and images is required for the annual exhibitions, and visitors respond positively to interactive environments. A specialized audience, for example, will demand more in-depth knowledge, backed up by supplementary written resources.

The study of anthropometry (Measurement of a person’s height and dimensions, especially when considering diverse ages, races, careers, etc.) teaches us about the proportions of the human body and what it means to be average. This is completely linked to the dimensions of all exhibition pieces. The study of human interaction with space and how space design affects how people operate in it is known as “Ergonomics”. Is it possible for visitors to move around freely? Is there a clear path to the fire exits?

Visitors and exhibition areas are no longer passive receivers. Visitors become performers within the exhibition space when they are asked to physically interact with it. The designer must guarantee that the design can accommodate the performance's physicality.

The designer can build pleasant and user-friendly environments with a combined understanding of anthropometrics and ergonomics. Visitor management and flow are influenced by information regarding predicted visitor numbers in order to provide the best possible engagement, experience, behavior, and perception.

The psychological attitude of visitors is influenced by interior architecture design in a variety of ways; each person receives, perceives, and responds in a different way due to physical and psychological differences, as well as differences in personal experience, culture, physical status, age, education level, gender, socioeconomic class, and ambitions are all factors that shape audience's needs.

The annual exhibit design approach should accommodate the visitor's psychological pattern and behavioral habit, necessitating the consideration of design methodologies from the visitor's perspective. One classic study of visitors in exhibition space suggested four different types of visitors moving through exhibition space: ants, grasshoppers, butterflies, and fish. Veron and Levasseur, (1989). They are probably best investigated in relation to different exhibition styles, for example, some visitors starting out as ants and then switching to butterflies later.

Ants visiting style:

- Follows a regular route.
- Spends a lot of time examining all the exhibits.

Grasshopper visiting style:

- Appears to prefer a few pre-selected exhibits.
- Takes a lot of time examining them and tends to disregard the others.

Butterfly visiting style:

- Does not follow a predetermined route but is instead led by the exhibits' physical orientation.
- Stops regularly to look for further details.

Fish visiting style:

- Most of the time, moves around in the middle of the hall.
- Usually avoids looking at the details of the exhibits.

The "fish" approach shows people quickly and shallowly scanning the entire exhibition's content from the center of the hall. Visitors that choose to study only the exhibition content that is of interest to them are referred to as "grasshoppers." The "butterfly" approach represents spontaneous visitors who wander about a lot and regularly change their viewing angles, ignoring the curator's advice and seeing nearly all of the exhibition's content while making

repeated stops. The "ant" design reflects viewers who take their time carefully studying each exhibit component one by one. Thawonmas, (2010). See figure 3-1, which represents four visitors' patterns based on how they looked in the exhibition hall.

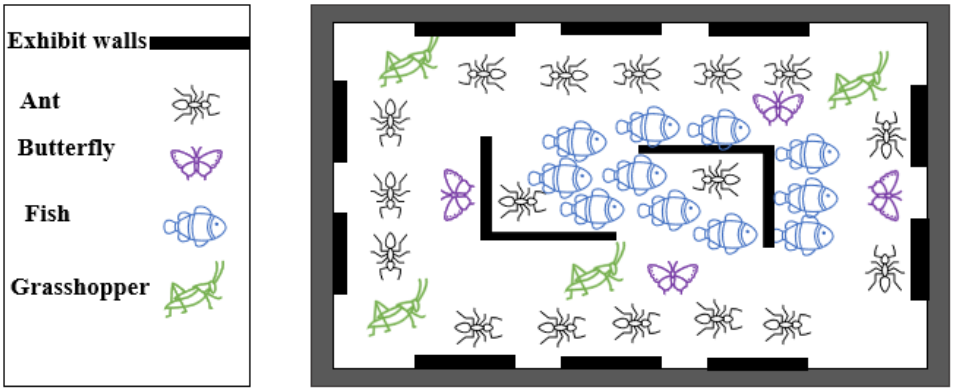


Figure 3-1: Describes the four visitors' patterns at the exhibition hall

Figure 3-1 shows that, the accuracy of categorization prediction for the "butterfly" appears to be very good, for the "ant" and "grasshopper" appears to be pretty good, and for the "fish" first seems to be poor but rapidly improves during the middle of the visitation.

We discovered that all visitors were first assumed to be "fish"—a logical assumption given that this category has little need of information. This indicates that a large number of visitors were classified as "fish" during the first 10 minutes. After around 9 to 15 minutes, the prediction tends to alter before stabilizing on the right type.

The analysis's findings showed that, once mastered, the "ant" behavior demands calm and extensive learning time. The "butterfly" activity is easier to recognize, while the "fish" behavior may be obvious right away, and the "grasshopper" conduct appears to be the most difficult. Even visitor behavior appears to be unpredictable, however with enough data, visitor kinds can be predicted.

The identity-based model of Falk (2009), for example, is a new technological advancement that justifies the necessity for assisting individual exhibition visitors. We should take into account the following to deepen our theoretical understanding of the numerous ways that annual exhibition space affects visitors:

3.1 Visitor Behavior: (Hedonic, Gain, and Normative)

Human behavior is changeable, mysterious, and innovative. Lincoln and Lynham, (2011). Cognition is the study of human behavior as well as the examination of mental processes and memory structure. As a result, cognition is the knowledge and beliefs that humans have and

form as a result of internal information processing that examines the stimulations caused by external events and objects. Cognition is a mental process in which people assign meaning to their surroundings, organize, and understand things and events, and gather information through their senses.

Individuals respond to their surroundings in one of two ways: approach or avoidance. Positive conduct focused on a specific location, such as the desire to live, discover, work, and collaborate, is included in the behavioral approach, but avoidance behaviors are the extreme opposite of positive behavior. The sensation and intensity result have an impact on the audience's process. If the experience is strong and appealing, the object or stimulus can penetrate the audience's consciousness directly through the various senses, evoking a response in the form of a change such as like-dislike, agree-disagree, and so on. When the setting is enjoyable or fascinating to the audience, positive behavioral responses emerge.

According to Mandl et al., (2011), the information that is framed as the goal of behavior is influenced by positive against negative information, resulting in acceptance or rejection. Based on this theoretical perspective, Lindenberg and Steg, (2007) identified three types of goals: hedonic goals (to feel better right away), gain goals (to protect and improve one's assets), and normative goals (to act properly), people's attitudes, feelings, and behaviors are formed by these goals when they are planned and activated.

A hedonic goal: People with hedonic objectives are often alert to what boosts or diminishes their pleasure, and it is related to their need fulfillment. As a result, people with hedonistic aims may engage in environmentally friendly conduct since it is joyful and pleasurable. liobikiene and Juknys, (2016). That is, people who are motivated by hedonic goals appear to enjoy themselves. In each scenario, hedonic goals assist people in experiencing pleasant or joyful thoughts and activities.

A gain goal: people who have gain objectives focus on how they might accomplish perceived usefulness of the resources, and a frame makes people very sensitive to change in their personal assets.

A normative goal: It represents people's judgments that relevant referents want them to undertake specific behaviors, and an individual's normative belief involves a particular referent weighted by the encouragement to meet with that reference. Chung, Koo, and Lee, (2017). As a result, the concepts of rights, duties, and equality are linked to a normative aim. See figure 3-2.

Given the large number of people who attend exhibitions, the communication strategy devised must resonate with all user groups. Fontaine, (2014).

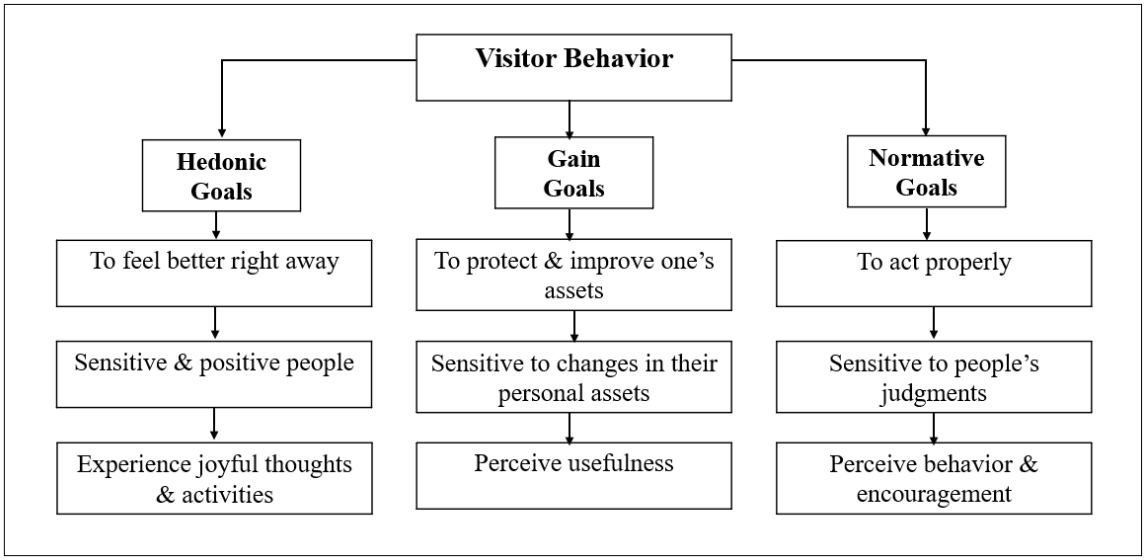


Figure 3-2: Identifies the three types of goals

Emotions are the positive and negative behaviors toward objective things or circumstances that are caused by internal changes and external expressions. Emotions can be caused for a variety of causes. When people meet things outside of themselves, they exhibit a variety of responses. Emotions and feelings are frequent names for these reactive responses.

The way people behave in different interiors varies based on the jobs and functions that take place there. Exhibitions benefit the public by serving as an informal learning environment. The exhibition room's physical layout has a direct impact on visitors' exploration, interaction, and knowledge of the place.

Researcher have been able to establish certain crucial performance and learning criteria for measuring the influence of exhibition spaces on exhibition attendees, as well as some major concerns of importance for architects and designers, based on a firm examination of visitor behavior studies.

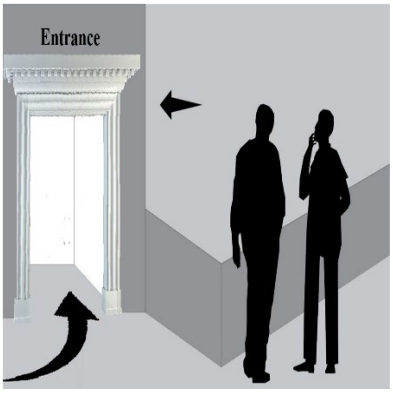
The following are the most important visitor behavior concerns:

- **Orientation:** It is critical to keep the main entrance point oriented throughout the exhibition to ensure that visitors are both physically and psychologically comfortable. Visitors require information about where they are and where they are going, as well as guidance in making the most of their short time.
- **Route selection:** It has been observed and documented that a variety of elements influence the visitor's journey, such as the position of the entry and exit, and the length of the route.

When places and exhibitions are designed with this in mind, the chances of their going ignored are reduced. Why do certain visitors choose one path over another? What is the greatest location for huge exhibitions? The majority of visitors will walk along the right-hand wall of the show. Another significant consideration when choosing a route is the "landmark exhibitions," which assist visitors in following the walk and appreciating its beauty, curiosity, and educational value.

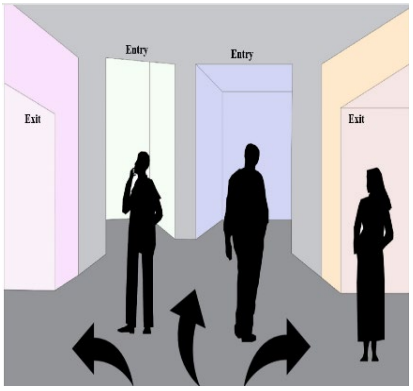
- **Traffic flow:** Another aspect of circulation to consider is traffic flow, which ensures that visitors may move through the exhibition at their own steps and with ease. The number of visitors in a specific place can affect the efficiency of public communication. The need for adequate corridors and exhibit space is commonly mentioned by exhibition designers so that groups and individual visitors do not have to interfere with one another.

  David Benyon in his book *Space of Interaction, Places for Experience.* Benyon, (2014); "Flow is an important concept that introduces the sense of smooth movement, the gradual change from one state to another".
- **Exhibition fatigue:** Throughout their tour, visitors will be exposed to a variety of situations that may cause physical and mental fatigue. Object satisfaction, confusion, lack of object variation, as well as physical discomfort, such as noise, overheating, and tiredness, are known to cause exhibition fatigue. At this point, visitors will lose interest and start to skip the number of objects and displays.
- **Object's location:** an important aspect in exhibition design, that we can decrease the consequent drop in losing interest to some extent by arranging exhibits to provide as much variety as possible, which can have a significant impact on visitors.
- **Attention distractors and attractors:** The exhibition's surroundings are just as significant as the display itself. Everything functional should be done to avoid conflict between the exhibit and its surroundings and to improve the ability of exhibitions to communicate more effectively with their audiences.
- **Range of movement:** simply moving around and inspecting strange objects in an unfamiliar environment, is the type of behavior that occurs in exhibition. The quantity of space covered can be influenced by several elements, such as color, entrance and exit points, and walls, according to visitor movement statistics. See figure 3-3.



Orientation

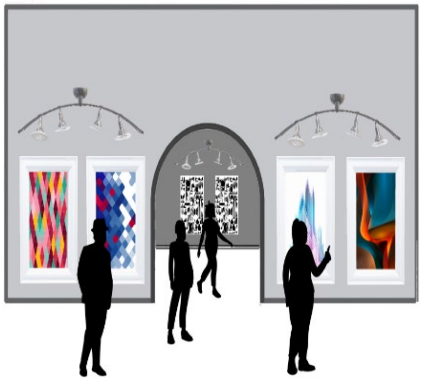
Exhibition Fatigue



Route Selection

Traffic Flow

Objects Location



Attention Distractors & Attractors

Range of Movement

Figure 3-3: Demonstrates the most important visitor's behavior concerns.

The researcher created a set of questions (questionnaire: A) to gain a more comprehensive understanding of the current state of audience behaviors during their journey at exhibition. The questionnaire can be provided to respondents with more time, at the same time can also be the respondents to student artwork, the way of thinking and attitudes positive/negative relative to objective expression, anonymous questionnaire survey method can be found in the appendix:1.

3.2 Visitor Perception: (Generic and Less Generic)

Emotional sensitivity is how people interpret the environment. People can see the light and colors of a location, hear the sound reflections, smell the materials, and feel their qualities. The sun, for example, can only be recognized as light when a wall is put into space and the subject's (visitor's) organ of sight (eyes) is stimulated. Only then can he fully begin to detect (sense) its physical attributes (light, shadow, or shade).

As a result, the audience engages physically initially through their sensory organs before connecting emotionally. They invariably create their experiential and emotional reflections of the place based on their first physiological stimulation, as well as any subjective feelings they may associate with space.

Sound, touch, smell, sight, and other cognitive abilities are used to perceive physical space, such as substance, scale, and direction. Because of stimuli, we get sensations in space and construct our neurological or cognitive link with space based on that perception. Perception is the result of the impressions of multiple senses, even if one is unaware of it.

It has been proven time and time again that the placement of artworks may influence the audience's view of the piece, changing everything from its value to the meanings it conveys. When our eyes scan surfaces or focus on objects, we may be able to state that visual experience can become a touch sense. Furthermore, there is evidence that when visual information is coupled with perception, it improves perception, especially in exploration. Benyon, (2014)

At this stage, we can present a set of rules that explain how visitor perception is influenced by spatial layout:

A. The generic: concept of direct accessibility influences visitors' exploration patterns; the more accessible an exhibition element is from all other exhibition elements, the more likely it is to be visited. This establishes a basic, but maybe self-evident, hierarchy of the likelihood of an exhibit being noticed in a spatially guided movement.

B. The less generic: it’s also possible that, when visitors remain longer, they become more aware and interested in the exhibit elements that are more noticeable than other display elements and choose to engage with them. **L**iobikiene, and Juknys, (2016). See figure 3-4.

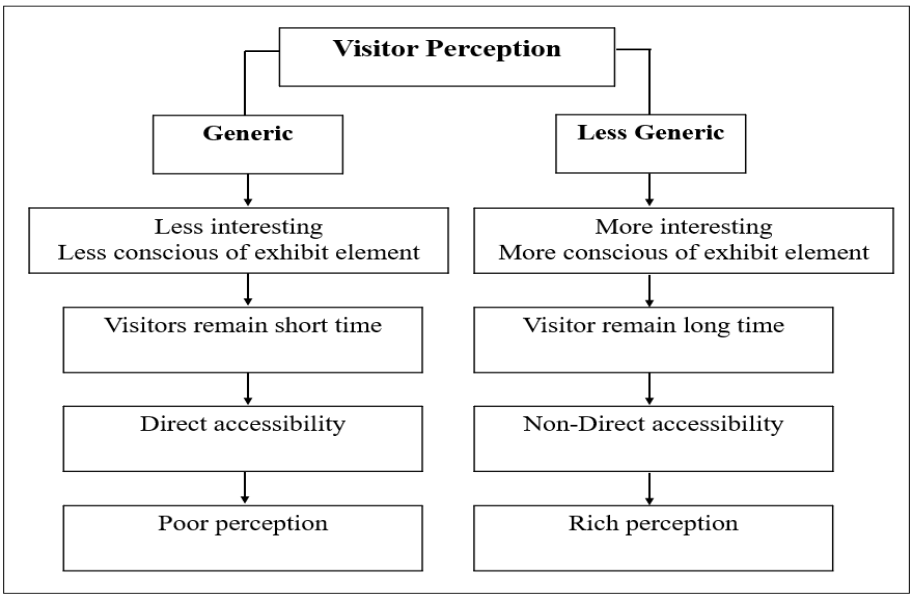


Figure 3-4: Indicates the two types of visitor's perception

3.3 Visitor Engagement: (Dynamic and Static Interaction)

"The exhibition engaged the public in dialogue with the intention of expanding visitor's consciousness about the issues at stake," Baker and Beer, (2016) observed. By offering contemporary art as an aesthetic and provocative experience, the article also gives professionals different opportunities to participate in creative placement.

Engagement is determined by how the material is presented and how well the visitor interprets it; if the visitor is not engaged or entertained, their ability to learn will vanish.

People form affective interactions with their surroundings in a variety of contexts, with deep and layered functionality. These connections give not only emotional and psychological benefits, but also cognitive and social benefits that contribute to a feeling of location, integration, and engagement. Yalcin, (2015).

The visitor is a moving body, and exhibition design can use movement patterns to investigate communication and engagement. The goal of this approach is to choreograph movement patterns and work together to engage the visitor, with the goal of creating a rich and critical memory of visitors.

It should not be misunderstood as a psychological experiment to ask visitors who are temporarily engaged with the architecture to sketch while answering questions. Instead, it provides a means of learning about their behaviors and drawing attention to the impact of nonhumans on them. As a result, it provides access to people's individual experiences through brief interviews ranging from 10 to 20 minutes in length. This form of interview is especially

useful for observing activities. Then we can see how their interactions with space are different. Hansmann, (2021, p.141).

Curators should think about how they might facilitate the groups' exploration and engagement with space's material. It is not enough to simply encourage people to attend exhibitions, galleries, museums, and events; curators must also encourage people to participate in activities, which requires curators to structure the type of engagement as "doing" activities, which works well because "making sense" for many people has a lot to do with making. Through the development of the "hands-on" exhibition in the 1960s, exhibition display expose a new revolution. Visitors enjoyed the interactive exhibits that demonstrated direct learning from experience. Hughes, (2015).

The process of engagement begins with "experiencing," which is followed by review and discussion. People rarely look for long periods of time; in most cases, they spend less than twenty minutes at exhibitions. As a result, coming up with ways to get people to pause and slow down, to look at and enjoy art, is a big part of creating engagement activities. French, (2020).

The sort of movement and the manner visitors examine architecture exhibitions are influenced by the setting and how the display is set up. As a result, visitors' interactions with the exhibition were divided into two categories: dynamic and static interactions.

A. Dynamic interaction: The visitor's path through the exhibition space. Gliding, diverting, manipulating, engaging, passing through, and looping are the several types of movement. Understanding visitor dynamics is critical when constructing any public area that is likely to have many people in it at any time. The use of good setting design can help to cut down on accidents. In general, the primary goal of visitor dynamics research is to reduce the risk of human damage. See figure 3-5.

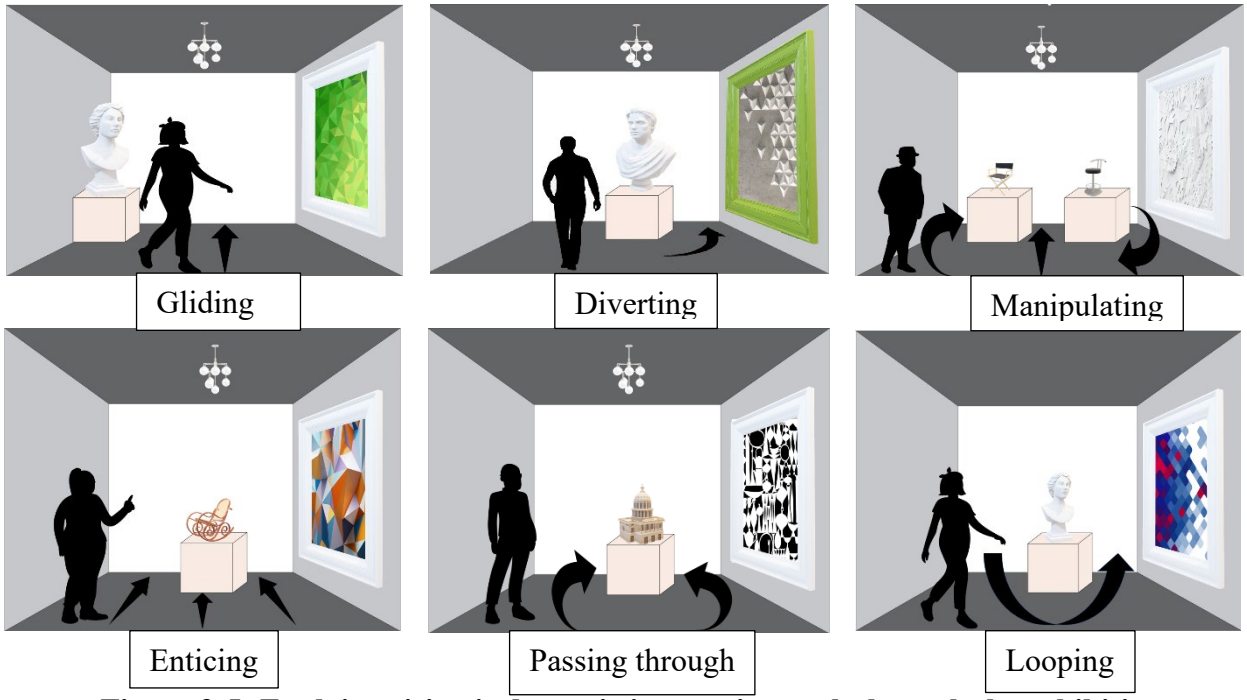


Figure 3-5: Explains visitor's dynamic interaction path through the exhibition space

According to Cooper et al., (2006), three psychological elements determine visitor movement. The first is that everyone is attempting to accomplish a certain aim. The second is that, depending on the circumstances, people will walk at a maximum speed. The third argument is that there is a discomfort zone, which means that if all other factors were equal, someone would prefer to be at one location over another.

These three factors interact to influence the path a person in a crowd will take when thinking about how to get to their desired position.

The dynamics of interaction stimulation include the modeling of crowd movements, interactions with people around them, and the physical environment, which is so important for safe design when crowd management is a major concern. Environment psychology is an appropriate approach, where people are considered in relation to their physical and social surroundings.

The researcher discovers that using a microscopic methodology that models each visitor, or in other words, real-life video footage, is the optimum method. Three main locations around the annual exhibition were filmed: the main entrance, lobby, and exhibition hall. As a result of their location, these sites offer the opportunity to observe people for enough time to observe their interaction with each other.

A quantitative evaluation was done of the footage to determine how many people were present, the number and size of groups present, and the way avoidance action was taken. The majority

of visitors prefer to walk on one side of a path, with only 15% of the 500 visitors analyzed walking down the path's center, according to the film footage. The remaining 55% chose to walk on either the left or the right, pretty much equally, indicating that there is no preferred side to walk on. The remaining 30% preferred to walk straight so they wouldn't knock into each other. See chart 3-1.

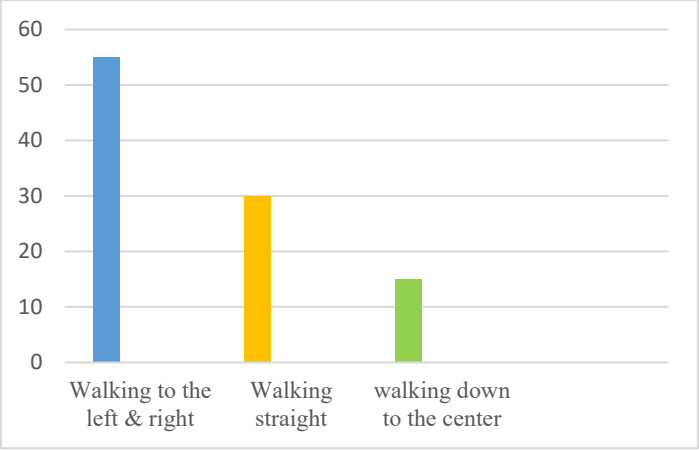


Chart 3-1: Filming visitors in various locations around the annual exhibition

B. Static interaction: Through various modes of observation, people interact with the architecture exhibition aspects. This term refers to a visitor's interaction with a static show. The type of exhibition media and exhibition spatial layout influence the direction of view in this case: straight, down, and up. See figure 3-6.

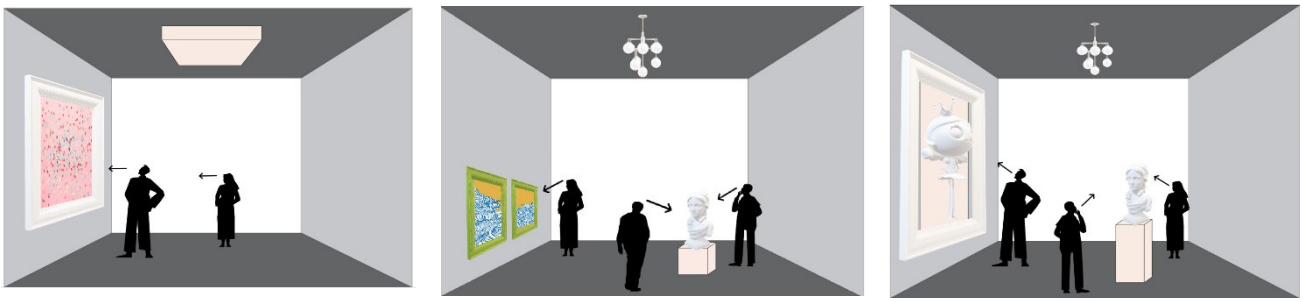


Figure 3-6: Refers to a visitor's interaction with a static show: straight, down, & up

Stopping at exhibition items, for example, is a static interaction of space. The role of space in forecasting whether visitors would stop or spend additional time is more complicated. Visitors are more likely to stop in areas where there are more individuals visible.

As a result, visitors are more likely to stop in spaces with more visual links to other spaces, as well as spaces that are visually connected to the exhibition's more integrated sections. People's awareness of the exhibition is formed in this way through spatial patterns of visibility and accessibility. See figure 3-7.

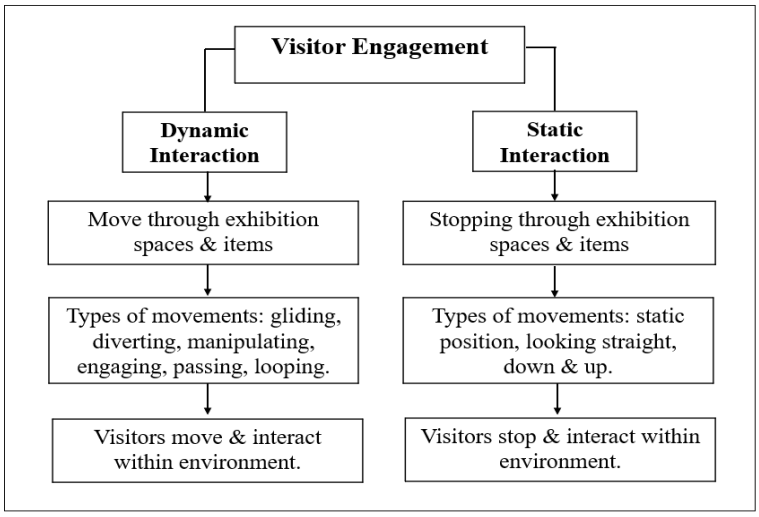


Figure 3-7: Describes the two types of visitor's engagements

The annual exhibition aims to:

- Provide a visually appealing presentation within the exhibition space, which offers a variety of engagement for its visitors.
- To design a quiet area within the display spaces for visitors to think, meditate, and relax.
- To draw more attention to the visible physical difference between products, architecture, and interior design.

The annual exhibition team designed an engaging guided experience in which visitors become actors by constructing the surroundings as a piece of visual art. The designers created a participatory space for visitors to take a break from their everyday lives and experience the world of exhibitions for a few moments.

Annual exhibitions are currently under a lot of pressure to find new methods, concepts, and themes to engage their visitors and students with their collections, according to the researcher, the quickly expanding haptic technologies have the potential to improve visitor connection. Current solutions, on the other hand, do not always take into account the most essential human features, such as aesthetics.

"Aesthetics in this setting are less about taste and more about an emotional engagement with the works of display and the exhibition environment itself," writes Helen Charman, (2016).

The engagement of visitors is sparked not just by the objects themselves, but also by their surrounds. The path and signage of the entire show, whether it tells a story or not, the lighting design, and how the objects are exhibited and labeled will all contribute to audience engagement. Technology will also play an important role in fostering subject-object engagement. It brings objects to life in this way, making the exhibition's learning process more appealing and dynamic, especially for today's visitors. The audience, on the other hand, still prefers to see original objects in order to fully enjoy and participate with them. As a result, to make exhibition education more appealing, today's exhibitions must begin to use appropriate, easy-to-use technology in accordance with their object and visitor needs. Wulandari, Ruki, and Fajarwati, (2019).

3.4 Visitor Experience: (Physiological and Psychological Perspective)

Experience is gained through the interaction of a person's mentalities with a specific event. The perceptions, feelings, attitude, and conduct of a person constantly interact with the surrounding environment as they gain experience. People experience emotions and obtain empirical information as a result of their interactions, resulting in personal experience. The audience's understanding and evaluation of the content of the viewing experience is referred to as the cognition form, while the audience's enjoyment of the viewing experience is referred to as the emotional form.

Because of its numerous meanings, the term "experience" causes misunderstanding. We all gather sensory and cultural experiences as a result of living in a physical and social environment. Then there are the experiences that arise as a result of specific settings created by designers in order to satisfy our motivations for interacting with the environment, objects, and messages. Davis and Hunt, (2017, p.11).

Experience, according to Luo and Cao, (2020), is an internal reaction and cognitive state that people have in their daily lives. Freud recommended "experiencing the immediate feelings of people at a specific moment in life, including recollections of past happenings, feelings about the current situation, and aspirations for the future" from a psychological standpoint. The theory underlying conscious experience is that immersive experience is made up of moments that span the past, present, and future, allowing visitors to reflect on the space's quality. In the place of memory (past) and anticipation, the elements of time enter the equation (present and future). Philips, (2014).

Experience design, from a psychological point view, is what allows your visitors to form an emotional connection with your design, which helps to generate trust and facilitates the fulfilment of your goals.

From a physiological point view, experience has a wider range of components. The external environment stimulates the senses of sight, hearing, touch, and so on, allowing visitors to have a sensory experience. The diverse sensory sensations in the exhibition space have stimulated the interest of visitors.

The study of philosophy can help you design for interactivity by providing important principles. One such principle is the idea that we are not naturally cognitive, reflective thinkers as humans, but rather individuals in the environment, situated beings who rely on intuitive action. See figure 3-8.

"We connect with individuals through our shared interests and awareness of objects around us," writes Simon, (2010). Since the conceptual act of cultural event innovation, it is possible to create new levels of social experience arranging the audience experience. This rethinking the social role of knowledge transfer models is required.

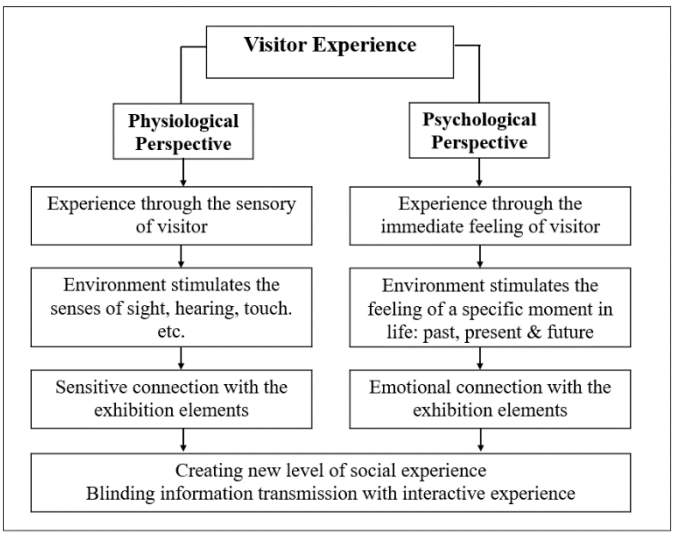


Figure 3-8: Indicates the two types of visitor's experiences

It is critical to prioritize people in the display space design process and address the relationships between people, people and space, and people and exhibitions. It is critical to blend information transmission with interactive experience in such an interactive experience.

"Experience is the irreducible entirety of individuals behaving, sensing, thinking, feeling, and meaning making, including their perception and sense of artifact in context", cited in McCarthy and Wright, (2004).

Because experience consists in the relationships between the components, it must be comprehended as a whole and cannot be broken down into pieces. People, technologies, activities, and the social and cultural settings in which contact occurs all play an important role in interactivity. Designers must think about how these pieces work together and achieve a consistent result.

As a result, experience cannot be truly designed. Designers can create an experience, but the experience is created by individuals and groups. Designers, on the other hand, can be sensitive to the features that contribute to a positive experience and can draw on experience design knowledge such as engagement, fun, enjoyment, and aesthetics.

"The concept of experience can be understood in terms of the complete area, as well as the display," Forrest, (2013) pointed out. To put it another way, an integrated approach to studying the entire visitor experience might be used."

"In this case, experience refers to the visitor's contact with the exhibition space in order to transmit the intention in the end." Lee Garcia, (cited in Maggie Lever Thesis, 2017).

The regulated atmosphere informs the power of artwork to communicate, so this concept of the exhibition space is vital. Another aspect of the experience is the creation of artwork itself.

Packer and Ballantyne published 10 visitor experience components in 2016 that might be utilized to measure and qualify the exhibition visit experience and lead to improvements in future exhibition design and content. Packer and Ballantyne, (2016).

When putting together an exhibiting piece, aesthetics and experience go hand in hand. You have room to fill and tell a story for your visitors that provides a seamless, enjoyable experience and leads them to do what you want.

A full comprehension of the task at hand, as well as the application of intelligent thinking and innovative design, is required to create the ideal balance of aesthetics and experience. When done correctly, you'll get the outcomes you want. When done well, your visitors will be completely unaware of the time and effort that went into it.

Expanding aesthetic experiences in public settings like exhibitions has the potential to increase audience experience while also honoring original ways of presenting information. Hare, (2017).

The importance of the visitor experience paralleled a shift toward exhibition display that generated an aesthetic encounter with the artwork. To what extent does an exhibit's changing

surroundings influence the audience's experience? The researcher questionnaire will also look at several other questions in order to determine which methods and environmental variables influence the visitor's interaction. you'll find a complete questionnaire (B) at the appendix:2.

3.5 Summary

People are social beings, thus investigating the interactions that take place between two or more people, as well as between people and their surroundings, is the first step in facilitating the link between individuals and their settings.

The immersive aspects of a setting improve the likelihood of interaction by default. Objects and settings become social network nodes, providing social support and interaction opportunities. These social interactions take place in a specific setting, which might be physical or virtual, and involve at least one other person. Instead of interacting with another person, the interaction could be with an object or the environment, but there must be some type of exchange. Artificial intelligence and responsive settings, for example, have increased the possibility and likelihood of our surrounds becoming even more participative and active, developing dynamic relationships with people. Glass, (2018, p.10).

It's worth noting that not everything we go through ends up being labeled as "an" experience. We spend the entire day experiencing things, therefore asking how many experiences a person had yesterday is pointless. Aesthetic experience, meaning experience, and emotional experience are the three elements of experience that we can articulate. Overall, the experience is varied and dynamic. The design process can emphasize the importance of human-centered approaches and taking into account more than just the interface when creating specific types of experiences.

The main element for successful communication in the exhibition is visitor attention. Bitgood, (2000); Shettel,(2001). A successful exhibition relies on excellent communication to draw in and keep the audience's interest. Without the exhibitor present, communication between visitors and the medium takes place in the exhibition space. Hooper-Greenhill, (2013).

By observing the visitor behavior patterns in the exhibition hall, visitors' behavior is classified. Dean, (1994); Serrell, (1996); Sparacino, (2002) Veron & Levasseur, (1989).

Early visitor type detection might enable presentation adaptation. How reliable have the visitors been throughout the visit? How fast can the type of a visitor be defined?

In conclusion, this study examined how exhibition visitors' behavior changed during the visit period. It demonstrated that, in some circumstances, it would be able to determine the kind of exhibition attendees before they even arrived. Exhibits must be planned so that visitors move through them efficiently. Frey, (2006).

This information about the general characteristics of various visitor types can be utilized to personalize the information provided to the visitors. Furthermore, this analysis demonstrates that:

- It is possible to classify different categories of visitors depending on their behaviors.
- The visitors' behaviors are inconsistent.
- In different types of exhibits, different behavioral changes occur.

CHAPTER 4: Overview

The development and implementation of interior design in the annual exhibition is the most fundamental part of this chapter. Whilst introducing design process, typology analysis of exhibition elements, and aesthetic values. In this chapter of the thesis, I will concurrently describe and analysis the performance of implementation focusing on the project that I am working on, the student's annual exhibition at the university of Petra, due to its largest importance of these elements in this thesis.

Appendices according to this chapter is at the end of this thesis including questionnaire:

(C): Visitors navigating the physical entities in an interior space.

4. STRATEGIS: Exhibition Design as Interior Design:

Exhibitions represent one of the most inventive areas of experimentation. There were several activities involved, as well as several languages. A dynamic, organic atmosphere is created instead of just being a place for gathering and exhibiting. Cirifino, Giardina, and Rosa, (2011, p.13). From new design perspectives, annual exhibits are evolving, renewing themselves, and integrating traditional student's tasks with new dynamics of engagement and interaction. Annual exhibition projects are being rethought from a philosophical, conceptual, and analytical perspective.

Rather than simply a representation, a translation within exhibition walls, or a 1:1 mock-up of architecture, the exhibition became a conceptual representation. Patteeuw and Szacka, (2018, p.11).

Herbert Bayer, a visual artist, introduced what he titled the "new language of exhibition design" in 1961: "*Exhibition design has evolved as a new discipline, as an apex of all media and powers of communication and of collective efforts and affects. The combined means of visual communicating constitutes a remarkable complexity: language as visible printing or as sound, pictures as symbols, paintings, and photographs, sculptural media, materials and surfaces, color, lighting, movement makes exhibition design an intensified and new language".* Herbert Bayer "Aspects of Design of Exhibition and Museums", quoted in Staniszewski, (1998, p.3).

After understanding the designer's goals, designing an exhibition is becoming a challenging process that necessitates a range of decisions to achieve good advancement. The fundamental components that make up the idea strategy are participants and design knowledge flows, which are a part of the event planning for exhibitions.

The planning of an exhibition should be organized to balance practical needs with aesthetic considerations.

The purpose of design is to create an environment for enjoyable experiences by modifying the characteristics of human interaction and behavior.

Designers and audiences had a close working connection where designers made knowledgeable assumptions about what audiences needed and wanted.

Today, such a straightforward idea is no longer proposed for the exhibition design due to the realization that the aesthetic awareness of viewers has significantly changed and that the design of the exhibition has improved significantly since embracing the superiorities of many

professions, and technologies. Sociologists and psychologists have recently investigated and analyzed visitors' social cognition.

In many disciplines, exhibitions are now regarded as vital and crucial locations where a wide range of problems can be explored. Macdonald, (2006, p.1-12).

Peter Bjerregaard proposes in exhibition as “Research” that exhibitions can act as a specific mode of research, a way of exploring our surroundings rather than reflecting them. One important question that Peter asked was "why should exhibitions even be considered as research rather than a forum to present and share the results of research? Bjerregaard, (2020).

When exhibitions are turned into research, it is not the most efficient plan that determines how exhibitions will proceed, but rather the curiosity and serendipity that make the experience enjoyable. In considering an exhibition as research, it is impossible to plan how it will process until we first start selecting, discovering, and captioning it, as Nick Thomas would put it. Thomas, (2016, p. 100-114).

Sharon Macdonald and Paul Basu's book Exhibition Experiments was an early contribution to the debate on exhibitions as research. Using the term Laboratory indicates both the movement towards intellectual experimentation and the movement towards social experimentation. Macdonald and Basu, (2007,P.2).

Since exhibitions are increasingly being referred to as "laboratories" where ideas can be tested, examined, and inspected out in a physical setting, and we are able to communicate directly with the audience, who can sometimes give us better understanding of exhibition's subject. Bjerregaard, (2020).

Interior design has always shared values with art and architecture that promote human engagement with the environment.

According to Nelson & Stolterman, (2003) and Krippendorff, (2006) design intention should be based on such an idea. By including exhibition experts and visitors in a portion of the design process, I have investigated this issue through participatory design.

General exhibitions have a showing period of two to five days, while annual exhibitions are more seasonal and have a different timeliness. There is a lot of information to convey in a short period of time, and the quality of the display itself affects the audience's receptivity.

The Foundation for Interior Design Education Research (FIDER, 2003) defined interior design as the profession that is qualified through education, experience, and examination to improve

the foundation and quality of interior spaces with the aim of enhancing quality of life, boosting productivity, and preserving the health, safety, and welfare of the general public.

The National Council for Interior Design Qualification (NCIDQ, 2003), the most recent modification completed in 2004, stands as follows: “Interior design is multi-faceted profession in which creative and technical solution are applied within a structure to achieve a built interior environment. These solutions are functional, enhance the quality of life and culture of occupants, and are aesthetically attractive...”

The field of interior design is still developing to define its disciplinary boundaries, build its knowledge base, and develop its own educational philosophies and practices more clearly. As interior design educators and professionals, we understand that it is our duty to build our future through policies, instruction, and research.

Modernist architects and designers such as Le Corbusier introduced the concept of the interior as an extension of the exterior. Kleinman, Merwood-Salisbury, and Weinthal. (2012).

Konigk, (2010, p.60) pointed out that interior design as a profession is defined as “the design of enclosed interventions in the built environment for which documentation is produced”.

Interior design encompasses more than just meeting basic needs; it also aims to elevate the spirit of people by appealing to their minds and senses. Caan, (2011, p.112).

The advancement of interior design has already contributed to environmental psychology. One of the interwoven disciplines was the study of aesthetics and ergonomics. The goal of contemporary interior design is to create a secure, cozy, enjoyable, and richly aesthetic indoor environment. It involves elements of engineering, art, ecology, environmental psychology, and other knowledge-bordering fields.

First, the material level, which includes the use of the function, the distribution of the space, the interaction between material and structure, building, and technology. The second is the spiritual level, which includes all areas that have an emotional and aesthetic impact on the visitors.

Interior designers must put effort into designing with emotions, paying attention to the natural world, people's physical and mental health, and cultural habits, etc. Designers should consider these matters to make sure that the visitor’s mental and emotional needs are completely met so they are fully satisfied.

The interplay of human visual quality with social elements and longer-term exposure may cause the impacts of aesthetic interior design to become more noticeable. People today are becoming more aware of their surroundings, and occasionally they are extremely sensitive to the requirements of their surroundings.

The interior design studio environment, which serves as the foundation of interior design education, is a setting where students learn design cognition by producing, amassing, and exchanging experiences and knowledge of designing. This learning depends on what the students produce, how they receive feedback from their teachers, and how they revise their designs considering this feedback. Two methods can be used to fulfill the educational role of the annual exhibit: the exhibition, which can be represented as a type of mass communication, and the education program, and can be represented as a form of interpersonal communication.

Jordan has given environmental psychology research more attention as society has developed throughout time. Environmental psychology research in Jordan is still in its early stages, therefore its impact on contemporary interior design is limited and cannot be fully realized. Additionally, since people's needs for indoor environments have gradually improved, current interior design has started to shift toward development methods based on environmental psychology.

Yet, these circumstances suffer from a lack of completely satisfying people's needs for a pleasant living and working environment. The following are the main factors of this situation:

First, Economic circumstances are prohibited. People frequently wish to modify their indoor environment to better suit their needs, yet doing so would necessitate too many material conditions, preventing them from following their own high-quality indoor environment.

Second, because people have such high expectations for the indoor environment, it is frequently challenging for interior designers to fully comprehend these expectations.

Third, there will be less need for a good indoor environment due to the restrictions of the interior design plan, which will reduce the impact on interior design and make it difficult to establish internal recognition of the indoor environment.

According to this point of view, several limitations in the interior design process make it difficult for environmental psychology to play a larger role. As a result, modern interior design can give people a more suitable living environment, having a significant impact on people at work and their emotional attitudes throughout life as well as their standard of living. In order to ensure the security and comfort of people's indoor environments, how might environmental

psychology be used in contemporary interior design? To improve people's quality of life and the environment, it was decided to study modern interior design and environment psychology, examine the influence of environmental psychology on modern interior design, and do our best to satisfy visitor expectations. Wang, (2018).

To improve people's living conditions and work toward creating an environment that is acceptable for people's lives, environment psychology should make use of people's psychological changes and other features.

When taking about economics and environment, I shall introduce the model of Kate Raworth the British Economist, and the author of "Doughnut Economics" in 2017. According to Kate, her goal is to establish the city as a doughnut city, a place where human beings and nature can live and flourish together as one. Unlike other models, the Doughnut does not have a perspective nature. There is no road map provided. In its place, it represents a positive vision for the future: to provide a high standard of living for everyone without hurting the environment.

According to the United Nation Sustainable Development Goals (SDGs), the inner ring of the doughnut represents the minimum standard of living-that is, food, clean water, shelter, and gender equality should be accessible to everyone.

According to Raworth's model, no one should be stuck in the middle of the doughnut, where they are unable to meet their basic necessities. Meanwhile, the outer ring represents the limits of our planet that humanity is facing, including rapid biodiversity loss, air pollution, and climate change which threatens to destroy humanity. And when it comes to design there is an interesting quote of Kate Raworth:

" When creating an accessible environment, we do not compromise design, we enhance it" and "It is essential to understand that economics is about design, not discovering laws". Raworth, (2017).

For this reason, if we want to develop sustainable economics in the 21st century, the Doughnut offers a new approach and includes a new way of thinking.

The annual exhibition's interior design has a significant impact on how visitors and students alike perceive it and are motivated by it. The purpose of the annual exhibition is to provide students with learning and discovery opportunities outside of the classroom.

The interior design objectives for an annual exhibition are:

- To explore the interior design techniques used in the annual student exhibit.
- To put forward a concept based on a creative perception of interior design that will best inspire undergraduate students' education.
- To design and install the prototype designs of the annual exhibition in the temporary exhibition space.

Annual exhibitions should be created to provide information through their collections and exhibitions in the most entertaining manner possible by utilizing diverse interior aspects. exhibition planning and designs must assist the success of student works in providing information to its visitors in addition to making the exhibition seem appealing. The concept of interior design is an" activating and dynamic platform that facilitates the occurring of meaningful activities for its inhabitants". Petermans, & Elisabeth, (2014).

The effectiveness, functionality, accessibility, aesthetic value, satisfaction, and great joy of an interior environment, on the other hand, are to be defined as the value of an interior environment, and if the designers' work is to prove how all of these commit to productivity and environmental satisfaction, if there are any questions that need to be addressed to get at these issues in accordance with the psycho-social conditions, the interior environments should be analyzed in accordance to the following circumstances:

- The perception and evaluation of the final visitor in connection with the design issue.
- The contribution of the institution to maintaining the principles of the visitors.
- The institution's role is to improve the visitors' quality of life.
- How the design solution responds to contextual challenges in a global context, such as economic, environmental impact, political, and social.
- The method in which aesthetic factors are addressed by the design solution in relation to performance concerns, contextual concerns, and social relevance concerns.
- How the environment stimulates feelings of enjoyment and fulfillment in its end visitors.

4.1 Design Process:

A problem-solving process is how the design process is frequently described. Are challenges solved by designers? Applying a known rule to solve problems of an overall kind that differ in a slight or predictable way is another aspect of problem solving, which also improves the quality of life by making better spaces.

The value of open public spaces where individuals can interact with others from a variety of backgrounds simply by "being" in public. Using design techniques to emphasize the nature of involvement and its effects, impacts, and potentials. Design is an iterative and emergent process, alternating between problem description and solution, divergence, and convergence. A designer's imagination and intuition play a significant role in the exploration of potential solutions for the future.

In addition, design is becoming a more interdisciplinary and cross-functional activity as designers combine numerous "types of knowledge" while tackling issues with a high level of complexity and uncertainty. Edmonds, (2020, p. 211).

It is better to think of design as a circular process rather than as a linear one. Usually, designers engage in interactive work processes as a means of achieving a successful result.

Multi-sector collaboration regarding space and involvement in decisions affecting the built environment can be facilitated by a design process approach. Design-led engagement processes are seen to be valuable for fostering more thoughtful publics.

As a result, the cohesiveness explored through the design-led process gives value. A special framework provided by the design process aids in directing such interactions.

The depth of the challenges is also better understood by design professionals thanks to this method, which also improves their contextually aware perspective. Design professionals are trained in these skills because design has the power to translate, interpret, and communicate. Edmonds, (2020, p.231-241)

The six stages of the exhibition design process are analysis, idea, development, proposal, detail, and installation. As the below figure illustrates, these stages are encountered by the exhibition designers through a continuous process of feedback and evaluation. See figure 4-1.

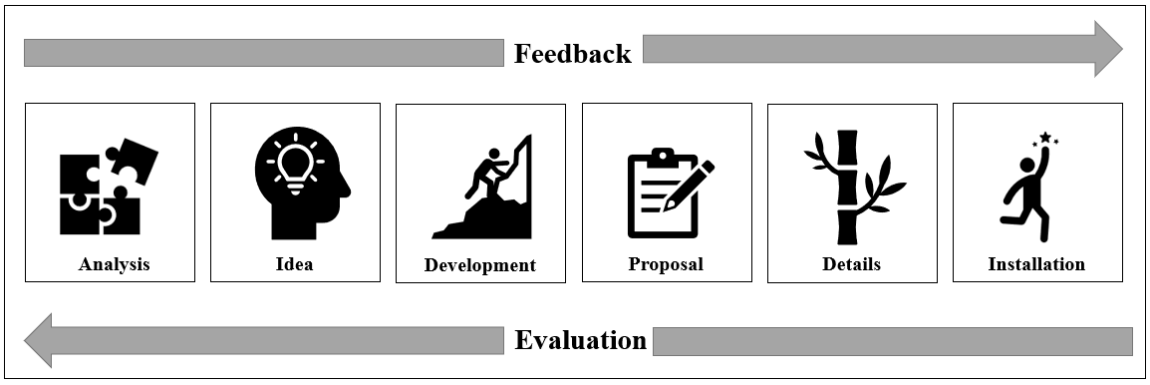


Figure 4-1: Illustrates the six stages of the exhibition design process

This complex procedure which has been designed in the figure: 4-1 as a linear pathway that considers the progression of a project from analysis to installation. Designers are in charge of identifying, outlining, and communicating these demands to the rest of the creative team.

- **Analysis:** Several documents are necessary to create a strong project analysis, manage the project, and have a significant impact on the success of the design product. Describe any related conditions, such as the project's scope, the designer's methodology, the requirements, the design tasks, and the production. It could include questions, goals, plans, meetings, and a design brief.

  This data analysis's goals are to define problems and provide appropriate information that others can use to understand the current state of progress.

- **Idea:** Each participant will come up with several suggestions as the project is being developed to express their ideas and share them with others. These concepts are offered to create a forum for various ideas and thoughts.

- **Development:** To develop an efficient and systematic process, it is important to have a well-structured approach. Keeping all participants informed of the progress of a multidisciplinary design project is essential to its successful execution.

- **Proposal:** To form a proposal, general concepts from each discipline must be integrated. Planned and designed in advance. Participants have their own plans and theses must incorporate new proposals calculated in such a way that:

  A. Provide sufficient details to allow a quality surveyor to make a cost estimate.

  B. Specify the work requirements of other participants.

  C. Prepare a proposal for the project and a general plan.

  D. Establish a set of guidelines for the overall project process.

  E. Ensure that sufficient details are provided for contractors to provide quotes.

- **Detail:** The strategy for creating an exhibition should make clear the specifics of the intended course and offer a framework for a project development team. To start the design project development, collaboration is required. Negotiation, agreement, and discussion are all part of the collaborative principle, which is an active approach to carrying out decision-making in the design process using all related information.

- **Installation:** While the design idea is established and the design issues are identified, a wide range of concerns should be investigated before the installation. During the creation of documentation, checklists are employed to ensure that none of these concerns are missed.

Understanding the design process is the first step in becoming an exhibition designer. Exhibition designers must meet deadlines, handle finances, comprehend legal, accessibility, and sustainability issues, and have a variety of design, management, and interpersonal skills that are essential to the creative team and impact how well a design project is carried out.

4.1.1 Physical Entities in an Interior Spaces:

(Space, Object, Material, Color, Graphics, Technology, and Budget).

When visiting exhibitions there is an unavoidable and spontaneous interaction between the visitor and their environment. There are both positive and negative outcomes to this interaction. A good interior space considers all the cognitive, physical, and environmental factors and balances them to create a space that seems appropriate, practical, and emotionally satisfying. The "visitors" are the most crucial component that needs to be taken into account while designing an interior space. It is a difficult task to balance all these factors yet doing so produces the ideal interior space design.

This chapter aims to highlight the importance of creating an ideal interior environment that strikes a balance between visitor preferences and the regulations that must be applied for visitor ease and safety. There must be an ergonomics scope in between, acting as a guide to strike a balance between visitors' preferences and accepted standards.

Additionally, it should include step-by-step instructions, direction, and guidance on how to follow to the requirements and standards in a methodical manner to adopt an integrated approach to treating all elements, which will in fact produce a successful interior space.

Physical factors, space, and human beings are all elements of an interior space. A few of these factors are characteristics of physical entities (such as space, object, material, color, graphics, technology, and budget), whereas others are environmental aspects (lighting, sound, mood, and tone). It is a difficult task to balance these factors, yet doing so produces an ideal interior space design. It is crucial to keep everything in an interior area in balance. Given that culture has an impact on people's psychology, culture is a significant guiding force in interior design as well.

People and their culture are influenced by their physical environment, and vice versa. During the postmodern era, interior design was closely related to traditional culture with its fine aspects. Zhang, (2010). Any type of design is significantly influenced by emotion. This emotion can be characterized as a complicated, psychophysiological sensation of a person's mental state that might have a positive or negative impact. The relationship between emotional requirements and visitor safety is indicated by national and international standards related to behavioral psychology and ergonomics of space design.

- **Space:** Since the educational message is built through movement in space, informal education exhibits have a special quality that makes them stand out from other exhibitions. An exhibition's overall image will be shaped by the ways in which people are encouraged to walk through it, whether along a clearly defined path or more freely along a self-directed path.
- Our perceptions and comprehension are shaped by patterns of accessibility through the exhibition space, links or separations between space or exhibition pieces, sequencing, and grouping of elements. In terms of how we construct space in architectural theory, as well as how we examine and comprehend buildings, the idea of spacing is crucial. It also demands a critical reassessment of conventional notions regarding the function and relationship between the architect and those interacting with the building.

  The three most prevalent components of space—walls, floors, and ceilings—create room, an internal space that can be measured and seen.

  As humans in space, we move in accordance with the walls, doors, and passageways that direct and constrain our experience. These restrictions vary depending on whether the environment is open or closed. Although an open floor layout could give the impression that everything is possible, there are some fixed points and anchors in experience. Every building in experience is unique. It never repeats itself. Hansmann, (2021, p.27,47).

  We contend that exploratory mobility, visual contact, and active engagement with exhibition elements are all influenced by the shape of space, whether it be the layout of the building, the placement of exhibit pieces within the layout, or the structure of the remaining free space. There are two different types of spatial layouts: "full visibility" was defined as being able to see another exhibition element completely to assess its nature and contents, while "partial visibility" was defined as being able to see just enough to assess another exhibition element's presence but not its nature or contents. These layouts were based on the potential visitor exploration paths. See figure 5-22.

Visitors may find it simpler to interact with individual display items in an open-plan exhibition room. Decisions to engage display pieces were more strongly influenced by how visible they were.

In higher education, there is a strong connection between physical environment, social interaction, and learning progressions. Considered a fundamental component of learning design, space is a crucial component of design for learning. Leijon, (2016).

It is crucial to consider how space affects negotiation and transformation since space affects interaction, but interaction also affects space. Leijon, (2012a, 2012b).

- **Object:** It is crucial that the designer develops an awareness of the unique needs of valuable objects while creating an exhibition and collaborates closely with the curator and other team to ensure these challenges are appropriately addressed. The arrangement of the exhibition's numerous pieces must be carefully thought out to make the most of the available space without giving the room an overcrowded appearance. Learn more about the shape, size, and purpose of each object, as well as how much attention it draws. After analysis, position each object so that it is useful in its intended use. The human brain processes visual objects more quickly than verbal ones. Lankow, Ritchie, and Crooks, (2014).

  In the exhibition, every object has a unique expressiveness, so every object requires a unique arrangement of space.

  Objects are tangible artefacts composed of three components:

  A. The material forms.
  B. The idea or subject.
  C. The content.

  They are products of human activity and are not subject to natural ecological laws, but rather to exchange value laws. Konigk, (2015).

  The interaction of the environment and items creates multiple layers of meaning in the internal environment. The interplay between place, object, and user is what determines meaning rather than the item itself all the time. Clemons and Eckman, (2011). See figure 5-11,12, and 17.

  A behavioral and spatial condition's components include accessories, fixtures, items, and furniture, both aesthetic and functional. Although subjects are necessary for all objects, social objects are especially so. They naturally have the capacity to create a

bonding shared experience. Social items alter how people interact with their surroundings and can promote behavioral changes.

People are not the objects of an environment, on the other hand. In contrast, they take part in it. Glass, (2018, p.10).

- **Material:** Is a type of visual information that is frequently disregarded. It serves as the foundation for realizing spatial creativity and is an essential component of information expression and environment construction. To effectively express the superiority of the surroundings, the interior of an exhibition must be designed with suitable materials in mind.

  The designer's capacity to envision alternate uses for materials and goods is one of their many skills, and materials are picked for both their functional and aesthetic possibilities. Interior design is the study of physiological and psychological characteristics of people, mass production of materials using industrial equipment, creating a healthy and comfortable living space in accordance with modern ethical standards. Zhang, (2016).

  A wide variety of materials can be used to present graphic information. This can be accomplished by ink-jet printing on a variety of materials, including paper, woven material, medium density fiberboard (MDF), plastic, recycled card, and Foamex, which is a semi-rigid blown plastic material of two millimeters. There are also different thicknesses of materials available based on the requirements. In addition, it is possible to print on paper as large as 6 meters (19 feet).

  Both Cibachrome and Lambada processes are suitable for printing photographs on paper up to 1200mm in width, as well as up to 30m in length (98ft).

  Vinyl self-adhesive is available in a range of colors and finishes and can be laser cut to create any decorative pattern and lettering. Student annual exhibitions can benefit from Vinyl because it can be simply removed and replaced with another at the next exhibition. Digital fabrication and laser cutting technologies are providing new ways of creating exhibition components that may be less wasteful and less time-consuming. See figure 5-18.

The tactile information provided by sample material boards can be extremely valuable for early decision-making. Hughes, (2015). See figure 4-2.

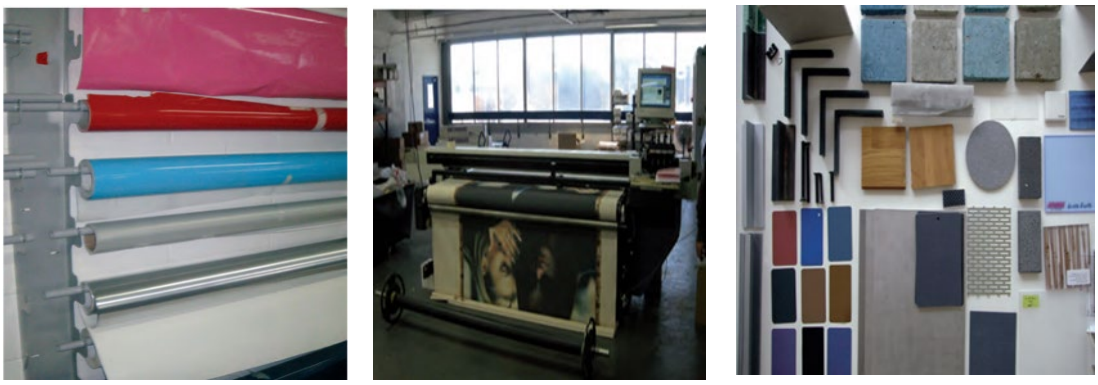


Figure 4-2: Illustrates the materials used to present graphic information

- **Color:** There is no doubt that color has the most powerful, affective, and mysterious influence over human behavior and interior design. Age, gender, trends, cultural meanings, and personal preferences all influence how people respond to colors. Cultural biases in color and illumination influence the design choices in exhibition spaces and impact its meaning and message. Edensor, (2015).

  When choosing colors for an exhibition, designers must consider how overall and local color relationships interact so that neither the local color nor the general color can be control, and both may stimulate visitors' interests and give them rich visual impressions. The color contrast between the exhibition space's walls and floors must be considered by the exhibition designers. Qian, (2018).

  Considering color as such an important element of interior design, it's hard to imagine a designer not taking pleasure in and perhaps gaining new insights from color. Travis, (2020).

  It is well known that colors have a significant influence on our feelings and emotions. The association between color choice and whether a hue evokes positive or negative affections is crucial to understanding the link between color and emotion. It is important to recognize the symbolism of colors.

  This symbolism can be seen in how people relate different colors to different things, objects, or actual spaces.

A high and immediate selectivity of the elements of the visual field is made possible by color change. As a "study of hues as a predictor of human behavior," color psychology is significant to interior design because it can have an impact on a person's mood, state of mind, and general behavior. Sarkar, (2018).

The wall color in exhibition halls can be used by curators as one of their primaries means of communication. The curator manages color to represent the exhibition's hidden information. See figure 5-16, and 17.

Design for aesthetic purposes is based on color and shape theory. These guidelines are utilized by designers to produce the feelings and experience you need to gain with your exhibition design. The appearance of an exhibition provides the emotions and experience you need your visitors to feel. When color is used directly in displays, it affects themes and styles as well as atmosphere. Chen, Bian, and China, (2014).

Colors need a border, a shape, and to be distinguished from the other colors to stand alone. The colors are related to one another in terms of color.

It is difficult to count the combinations and effects of colors and shapes because there are an infinite number of both.

So, one designer's goal is to figure out how to use color symbols to achieve harmony and unity in their own thoughts. Jie, (2018). Color perception is influenced by the observer's qualities, which vary from person to person, and the degree of light adaptation.

An essential component of visual processing that adds to our knowledge of the environment's physical characteristics is good color perception. Utilizing a variety of color combinations to enhance visual performance in numerous jobs is now possible because of technological advancements in color screens. Color is employed in lights, signage, display instruments, and control applications in addition to increasing the appearance. Best, (2017, p. 51,79-80).

- **Graphics:** One of the most crucial factors in the logic of artistic expression and aesthetics is graphic design layout. The layout of the exhibition space is a key message to send because it is one of the fundamental components of the exhibition space. Content should only be displayed via external display forms to better demonstrate evaluation and acceptance by visitors.

Graphics are frequently used in exhibitions to communicate the visual to visitors by combining simple images and complex texts that visitors can quickly recognize and comprehend. Graphics have also been used in conjunction with other elements to focus visitors' attention on different exhibit items. Kalumpahaiti, (2017).

The most effective projects combine the efforts of exhibition designers and graphic designers to develop a unified design language that tells the story in a strong narrative with a distinct rhythm and consistency. Therefore, it is essential that the exhibition designer possesses a solid understanding of typography and the best ways to reach all audiences.

Legibility and readability are related terms, with legibility referring to the degree of clarity of letterforms both on their own and when combined to make words. In contrast, readability refers to factors such as the text's point size, line spacing, and length that make it simple to understand. See figure 5-16.

Point sizes are determined by viewing distance and lighting conditions. In general, San Serif fonts appear to be easier to read at a distance. A minimum type size of 18-36 points should be used for body text. Locker, (2011).

Word shapes are given extra information by the use of upper- and lower-case letters, which makes them simpler to read, especially from a distance.

A correctly chosen typeface will aid in telling the visitor's story. It is often hotly debated how much text visitors will read at an exhibition, since text still plays a significant role in most exhibitions. There is no point in reading large quantities of text. Limit the text to the "new" and "surprising". Frey, (2006).

The designer now has much more latitude to experiment with different text and image combinations because of the sophistication of graphic creation. Additionally, using floor graphics as an orientation tool or decorative element, like Footprints, might advise visitors in navigating the area.

- **Technology:** Digital media technology of computer information technology started to be applied to display design under the reasoning of information technology in this age, giving the temporary exhibition design a more vivid and three-dimensional presentation. Cao, (2020). Today's design challenge is to evolve tools and media to

influence social connections that go beyond straightforward engagements with technology and information. Our world has been significantly shaped by technology.

They wanted to make it possible for us to use, control, and manage the environment as well as interact with external items. They enable direct or indirect control of the outer world from a realm inside one.

Technology extends the human body by duplicating or enhancing physical and

mental capacities.

A characteristic of these technologies is that instead of being aimed toward the outside world, they are moving from the outside toward the inside, intruding into the human body. The influence of these new technologies is particularly effective because they are increasingly interwoven into our ecosystem. These new technologies are frequently presented as aids or ways to communicate and interact. Aydin, (2021, p. 1,3).

Learning must be integrated into ongoing educational processes. The way we learn needs to be expanded, and informal learning spaces need to be spread across a variety of dimensions because traditional teaching approaches are insufficient today. If we are to responsibly examine how humans, technology, and the environment will interact in the future, we must address the mystery and questions that the excessive presence of technology continuously raises.

The skills required to give immersive technology meaning and life are found in design and the arts.

Today, "design" is described as "the production of something in accordance with a plan." The designers' access to new materials and technologies has expanded the possibilities for what can be designed. Heller, (2018, p.21)

Although this new media technology and exhibition space design are two rather distinct fields of expertise, they do not conflict when combined; on the contrary, they provide a brand-new method of production. Huang, (2019). People progressively incorporate new technology into their lives.

By using well-conceived and realized media, we can explore, tell stories, engage in playful activities, and take a factual approach as well. The interactive elements of the exhibition allow visitors to independently interact with the content and engage, depending on their level of knowledge, either superficially or intensively. Frey, (2006).

The steady improvement of electronic products and the expansion of intelligent facilities, in addition to the network information era, show that the future society will be dominated by science and technology, and that people's thinking must adapt as well. The exhibition design has encountered significant adjustments because of its presence.

There are two parts to the exhibition space concept: physical space and virtual space. In the first case, everyone engages in a traditional space environment, whereas in the second case, new media technology is employed. It allows people to interact with the environment in a whole new way by feeling and touching it. As a result, physical space can be seen directly, whereas virtual space must be perceived. Both are essential components of an exhibition space. It allows designers to expand their creative thinking so they can be more flexible in their thinking, which can change their previous thinking mood when creating. Exhibition NET, (2017).

Information integration is a key factor in exhibition space design since it helps visitors receive important information. Using the tools of new media technology, more disorganized information can be planned, organized, and categorized uniformly, allowing the information from earlier exhibitions to be incorporated and optimized. The addition of interesting exhibition contents is useful to attracting more audiences and being immersed in terms of the exhibition material in a better way because the traditional exhibition space is dull and straightforward.

Digital technology has been heavily used in display design in recent years as a new design trend. In varied degrees, this type of digital technology is also the ideal combination of digital media and display design. It has attained good development space and utilization value. It may also claim to be a three-dimensional representation of virtual information.

Numerous artifacts are held in exhibitions around the world, but due to space constraints, they cannot be displayed. For this reason, virtual reality (abbreviated VR) and augmented reality (abbreviated AR) technologies provide an excellent presentation medium for exhibitions. With these technologies, a wide range of projects and objects can be presented and interacted with by a wide range of audiences, including students of all ages and the public.

First, Virtual Reality (VR.) technology: The Fraunhofer IAO, in conjunction with the Milanese architecture and design office DE Lucchi, is in charge of organizing the visual design exhibition, which first appeared online in March 1997. In the past, stereoscopic display technologies like Head Mounted Displays (HMD) have been used to present products and conduct marketing campaigns in virtual reality. Stereoscopic rendering allows the observer to spatially comprehend shape and design. Real-time rendering has the benefit of being interactive, allowing for changeable object properties like color and location.

Since the product may be incorporated into a vivid setting, product presentation in VR is also engaging.

Virtual design exhibitions consist of an exhibition part and tools for interacting with products. In the exhibition, visitors walk through virtual showrooms filled with the project's products.

It is essential that all showrooms at the exhibition are homogeneous.

This exhibition concept had the following requirements:

- A high level of acceptance and awareness.
- System for simple navigation.
- Guidelines for architectural structure.

Visitors can fully immerse themselves in a computer-generated virtual environment, as if they were in a real field. What you feel is exactly the same as what you can see, hear, smell, and touch. The virtual reality system is built around it.

Visitors interact with multi-dimensional information after entering the visual environment through a variety of sensors. It helps to clarify concepts, spark new ideas, and result in a significant improvement in knowledge.

The use of virtual reality technology as an exhibition tool for large projects makes it possible to create a realistic, dynamic, three-dimensional model and a multifaceted display of the exterior and interior of structures.
Virtual reality is a design tool as well as a demonstration medium. It exhibits the thoughts of the designers in visual form.

Second, Augmented Reality (AR.) technology Is a type of display that blends the real environment with the virtual image created by projectors. AR view consists of a huge

semi-mirror film that is angled 45 degrees toward the floor, a projector, and a screen that are both mounted on the ground.

The basic idea behind AR view is as follows: initially, a computer graphics image is projected onto a floor screen using projectors that are mounted at the ceiling. Visitors can then view the computer-generated image as it is reflected by the semi-mirror film.

One of AR's positive aspects is that visitors can get an immersive sensation and a sense of being in an augmented reality environment. By regulating the LED projector as the lighting, we can accurately portray the correct closure while ensuring that the computer graphics image does not interfere with the exhibition.

As a result of VR/AR technologies, standard presentations can be enhanced, and visitors can interact with digital objects in a more intuitive and exciting way. Visual exhibitions are structured according to the hierarchy of exhibition spaces in the database. See figure 5-14, and 15.

Changing the content and mood of a collection can be achieved easily by exhibition designers. In modern display design, the aesthetic feeling, and soul of design should be fully expressed, so that digital media can be more widely popularized and expanded.

We all lived through the COVID-19 issue at the time and have seen a wide range of technology. Krebs, (2021, p.14). To reopen the doors of their events and illustrate "virtual visits," exhibition curators and directors have been encouraged to use three categories: collections visualization, embodied visualization, and spatial and temporal visualization.

The ability to verbalize a visual image can be used as a tool for problem solving, planning, and orientation. Achima, (2021, p.16-17).

- **Budget:** Describe the materials and equipment required by the project, as well as their cost. Exhibitions all around the world are struggling to raise funds in the current economic climate for innovative projects and technological equipment that will stimulate people back time and time again.

  Enhancing collaboration with the university and highlighting the importance of student annual exhibitions, hoping that the university will respond positively, with an aim to increase funds in the future. In addition, pushing universities to think differently about

their annual exhibition budgets; in other words, enhancing the university's role as an exhibition producer. Bjerregaard, (2020).

Remember that graphics and objects are less expensive than highly interactive experiences or audiovisual displays so it's crucial to put in mind that when using these ways of interactive experiences then extra budget shall be added to comprehend beneficially and successfully. Hughes, (2015, pp. 29).

4.1.2 Environment Factors in an Interior Spaces:

(Lighting, Sound, Mood, and Tone).

- **Lighting:** Our environment is made better by lighting, which gives us ease of use as well as a feeling of safety, comfort, and enjoyment. Lack of light can disrupt standard human rhythms, affecting performance, safety, and health. Each interior area has a unique range of minimum and maximum lighting levels that are dependent on its use and interest. In an interior space, light defines the form and makes the space visible. People's perceptions of the environment and actions in response to it can be affected by color and illumination. Lighting plays a crucial role in the art of display and "maybe poetry that unites the entire exhibition and sets the experience." It can alter the environment, set the tone, and can be used to focus on one piece or whitewash a wall to show the numerous pieces. Cress, and Kamien, (2013, p. 153-154). See figure 5-11, and 12.

According to this viewpoint, light serves two important functions: it both illuminates an item (a physiological function) and creates the atmosphere (a meaningful function) in which the statement is made. As a result, it essentially participates in the emphasis.

When all environmental factors (such temperature and humidity) are considered, visitor comfort and satisfaction are totally achieved.

Space natural lighting and artificial lighting are the two basic categories used to classify lighting design in exhibition displays. Many of the building's side windows provide horizontal natural daylight (side lighting). The glare and reflections produced by this style of lighting are not acceptable for exhibition rooms and may deliver a display inaccessible to visitors who have visual weakness or aging eyes. To avoid this effect,

the windows should be treated with a thin layer of curtains. Wulandari, Fajarwati, and Latif, (2017).

Due to its low content of harmful radiation like Ultraviolet (UV) radiation, the white Light Emitting Diodes (LED) lamp seems to be the most suitable to be used for this implementation, since they can be programmed to change color over time to match the theme of the exhibition, and they are energy efficient and long lasting. Locker, (2011). In addition, Compact Fluorescent Lamps (CFL) warm white, could be an acceptable choice, especially for general lighting purposes, as well as downlights and spotlights are artificial lightings used in exhibitions.

A bright white lobby lighted by both daylight and artificial light is a standard requirement for visual adaptation to lighting levels at the transition from an entrance lobby to a ramp.

For the most part, the exhibition designers will need to use both natural daylight and artificial lighting sources to provide the best possible environment for viewing an object or display. Providing comfortable visual conditions for the visitor, as well as enabling easy movement between displays, is not just about lighting the exhibits themselves.

The exciting ways that light may affect the dramaturgy of space are often revealed by conceptual pairs like direct and indirect light or traditional techniques like "from dark to light." Kleine, (2017, p. 254).

Architecture and curators' choices for door openings should create a clear path for visitors, creating three distinct zones: the entrance area and lobby, the ramps and stairs, and the exhibition hall.

To create comfortable exhibition settings for visitors, lighting parameters, lighting value, and lighting source selection should be carefully planned and strictly applied to while in operation.

It is still a multidisciplinary problem to create an environment that is appropriate for both the objects on display and the visitors, to give them the best possible experience.

More sustainable solutions are obtained when the significance of light is considered during the design process. Jackson, Kyriakou, Petresin, Schielke, and Weibel, (2015).

A lighting designer should take inspiration from such approaches, aiming to create light schemes that would re-connect visitors with the space, encouraging them to value and understand their environment's impact on them, as well as how to alter and affect it, which in turn will influence other visitors. Nikolic, (2017).

- **Sound:** By extending the aesthetic to the sensory, the visitor can experience present people and is invited to participate in active listening. By taking sound into account in this manner, intimacy is created between the audience and the stories that are displayed in the exhibit. According to Beverley Diamound, "sound, like motion, is sensed as vibration. Our bodies are awakened and energized by sound". Robinson and Martin, (2016).

  One of the crucial elements that must be considered while designing an exhibition's interior is its acoustics. The spatial element of sound is always present. According to John Cage “In reality, there is never an empty space or time, but there is always something to see or hear, even if we try to make a silence”. Gibbs, (2007).

  Noisy interior environments can result from poor acoustics. People who live there may experience bodily illness such as high blood pressure, heart difficulties, headaches, digestive problems, stress, and anxiety as a result. The way that people react to sound depends on their age, ear health, environment, and other factors. Ballast, (pp. 66-72, 2010).

  Function determines the acoustical usability of a space. Materials that absorb sound and reflect it are chosen to provide the desired acoustics in a space. While soft materials absorb sound and provide a soothing environment, hard materials bounce sound around the space. By carefully choosing the flooring, wall cladding, and ceiling materials, noise can be reduced. The amount of sound required in a space is usually determined by the amount of sound absorption materials added or removed. Piotrowski, (2007).
  Adding sound to an exhibition environment enhances the visitor's experience. Creating an atmosphere and feeling with sound effects and soundscapes enhances a narrative. Locker, (2011).

- **Mood and Tone:** The exhibit's mood and tone vary, and the function of interior design varies due to the socio-cultural environment of each nation. The principle of the color image scale can be used to categorize the exhibition's overall mood and tone. According to the findings, each exhibit had a unique mood and tone based on its subject matter. Annual exhibitions are primarily made to project a fun, artistically sophisticated, youthful, and dynamic image.

4.2 Typology Analysis of Exhibition Elements:

There are different types of exhibition spaces based on their physical characteristics. There are two major types of architecture exhibiting media: planar composition and three-dimensional composition. In these types of exhibits, you can see how the exhibits will be arranged in the exhibition space.

4.2.1 Planar Composition:

In an exhibition room, planar exhibits are two-dimensional objects affixed to flat surfaces. Planar exhibits include architectural drawings, paintings, and photography.

The planar composition fundamentally consists of two arrangements:

- **Peripheral arrangement:** focused on the boundary of the exhibition hall. In this arrangement, it involves displaying exhibits directly on the wall or along the wall. Create a relationship with the exhibition space's vertical planes. The peripheral arrangement is one of the old types of arrangements. In the annual exhibition, it is widely used for displaying student works. A peripheral arrangement creates a two-dimensional relationship between the exhibit and the visitor because the visitor circulates in the center of the space. In addition, peripheral space fosters as the most dynamic space for creation and interdisciplinary collaboration, where disciplines intermingle, ideas are exchanged, and inspiration occurs.
- **Island arrangement:** focus on the center of the exhibition space. Make use of the exhibition space's horizontal planes.

  There is a common characteristic of both way planar arrangement and island arrangement in the relationship of exhibits: central, linear, grid, and cluster. See figure 4-3.

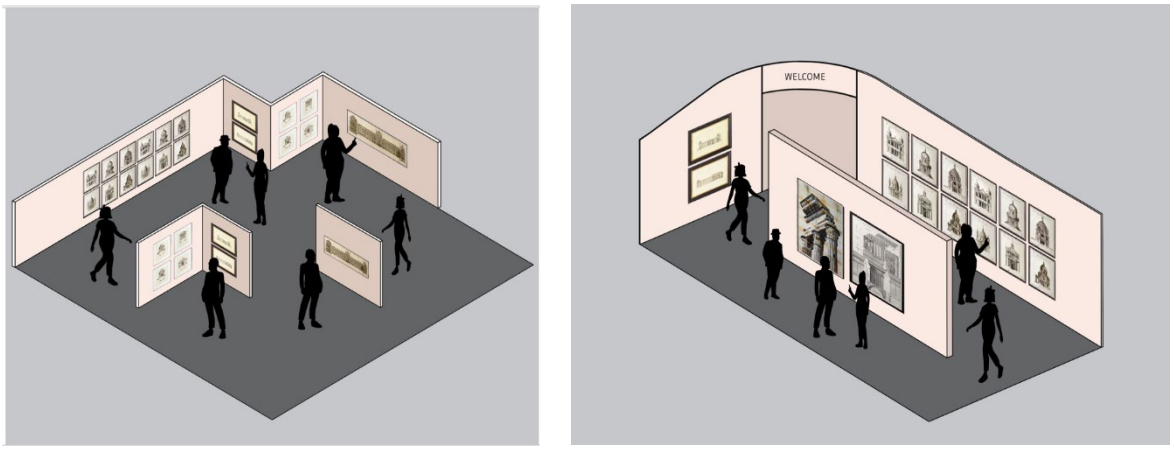


Figure 4-3: Describes the two types of planar arrangements

4.2.2 Three-Dimensional Composition: "White-Cube Phenomena"

An exhibit in three dimensions stands without being supported by another structure or elevated on a podium. Models of architectures and interiors, installations, and partitions that serve as additional display surfaces and a tool for managing visitor flow in the interior space are all included in these three-dimensional exhibits. To create a more varied exhibition experience, the visitor moves between exhibits placed in the middle of the room and those along the space's periphery.

Developed in the early 20th century, the white cube design serves to underline the importance of the art on display, by ensuring neutrality, the architecture is not a distraction, and by eliminating external influences, the viewer is presented with an environment leading to meditation.

Brian O'Doherty is a writer who selected two words "White- Cube" that perfectly describe the idea and sense of space still present after fifty years. According to Brian O'Doherty's famous 1976 book: Inside the White Cube: The Ideology of the Gallery Space, as a result, artworks are dislocated from the external world - they seem to float in an air-tight environment, it has become a sacred phenomenon worth examining as if it was a specimen in a laboratory. O'Doherty, (1976).

The white cube had been designed as the removal of the architecture itself from the scene for better interaction of the art with the visitor or to strengthen the storytelling of the work being presented.

Design should be used to describe distinguishing characteristics of objects such surface patterns, three-dimensional forms, material specifications, and aesthetically pleasing details. Walker, (2018, p.10).

For Michael Craig Martin, the goal of such a setting is to get to a place where the art is to be viewed first and not the environment. The response to the question "What quality of that space?" would be "simplicity." One essential component of white-cube spaces was simplicity. Ryan cited as saying (2000, p. 27). And as the French always say “la beaute` en la simplicite`”, means that beauty is in simplicity.

According to Fiona Kearney, space must be utterly unimportant for viewers to focus on the experience of the artwork. The white cube, with its claimed "perfect pure shape," indicates the continuous confirmation of this simplicity and neutrality. Tipton, (2005, p. 95-99). Here, with all respect I disagree with Fiona, and say that the exhibition space is to be created as a musical composition, using a variety of components to suggest a distinct theme, where each component is essential to establishing the outcome.

The space is never neutral or empty but is always filled with qualities, as Michael Foucault noted. Therefore, this white, so-called "neutral," space is not entirely innocent, but it does have the ability to allow worth and significance on what it contains. As a result, it became widely accepted that the bulk of white-cube cases represent fake neutrality, when architecture tries to blend in to support the art it engaged. Foucault, (1997).

White cube artworks frequently assist in emphasizing a specific part of a story without the intervention of color. Because there is no interruption with the display, the white-cube exhibition space has typically been designed in a spacious style, white, neutral environments that are considered ideal.

White-cube exhibition spaces offer a suspended world that divides us from our everyday worries and gives us a place where we can give our complete attention to aesthetic appreciation. Hegenbart, (2016). See figure 4-4.

Having a white wall facilitates concentration on the work itself. In the end, however, white walls tend to eclipse images hung on them. Frey, (2006).

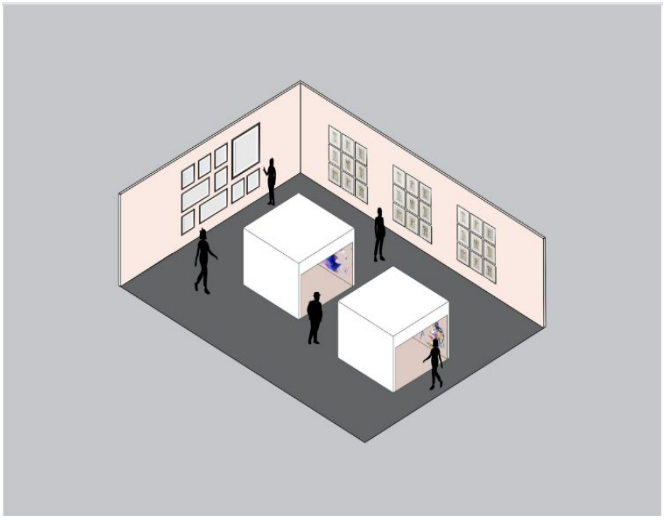


Figure 4-4: Indicates Three-Dimensional Composition: "White-Cube Phenomena"

4.2.3 Spatial Scenario: (Preparation, Introduction, Transition, Crescendo, Resolution and Arrival).

The exhibition's narrative is established through the use of both space and objects on display. In architecture, the narrative is developed and spatially experienced through movement. Basically, the narrative sequence presents space, exhibits, and visitors.

Exhibition narrative structure created along following stages:

- **Preparation:** The exhibition experience begins outside the exhibition space and continues inside.
- **Introduction:** The exhibition begins at the entrance to the space. Space is entered by visitors. In the entry, the visitor is given an indication of what is next.
- **Transition:** The openness of exhibition spaces attracts visitors. The visitors stop temporarily before moving on to another exhibit space or section of the exhibition.
- **Crescendo:** The intensity of space increases gradually. It is the period before the resolution stage.
- **Resolution:** Before completing their exploration of the exhibition, visitors have the opportunity to rest during the resolution stage.
- **Arrival:** The arrival stage of an exhibition concludes its narrative by reaching its final destination. See figure 4-5.

For the purpose of enhancing the value of the exhibition content, designers should focus on establishing display scenarios and the sensory experience and emotional ambiance of visitors.

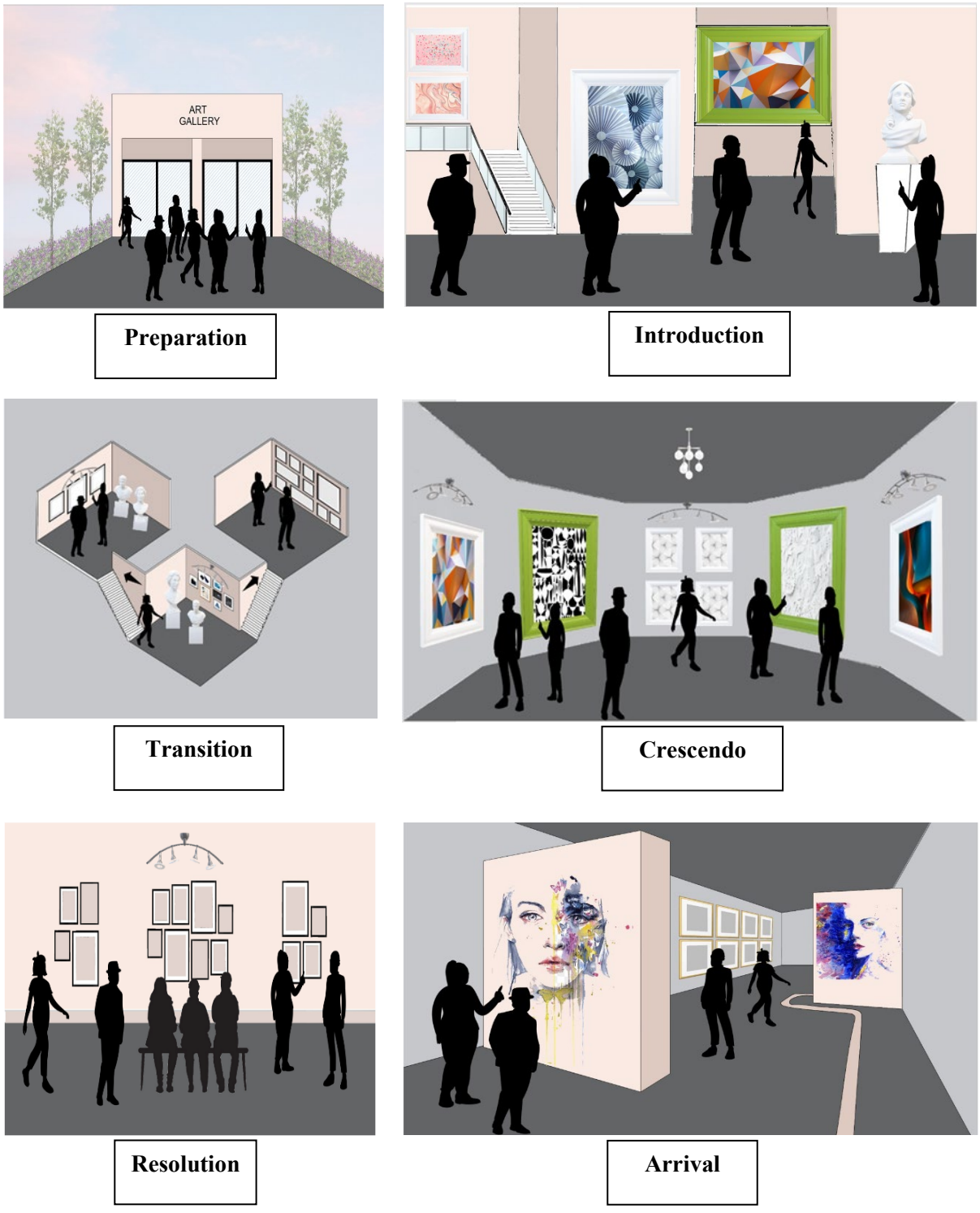


Figure 4-5: Shows the stages of exhibition narrative structure

4.2.4 Spatial Entities: (Intimate, Personal, Social, and Public).

It's critical for designers to become familiar with scientific theoretical frameworks, particularly those from environmental psychology, in order to know how people interact with built environments. In order to know how to build an exhibit hall design for faculty, teachers and students, it is particularly vital to recognize the interaction between the visitor and their environment. When arranging exhibits and creating spatial layouts for each student in each department to maximize their interactions, the interior design of each hall should represent not only the appropriate application but also appropriate aesthetics.

A visitor's interpersonal distance and spatial preferences differ depending on his or her personality type, cultural background, and social norms.

As a result, all spaces should be designed with these variables in mind:

- **Intimate:** (0-18”), An intimate relationship between two or more people (e.g., lovers, relatives, and close friends).
- **Personal:** (4-18”), It is commonly used by casual friends and people with close social contacts (for example, friends, coworkers, and members of the same organizations).
- **Social:** (4-12”), This network is maintained by people who don't really know one another, but who come together for common purposes (i.e., friends of friends, friends and relatives, and coworkers across the building).
- **Public:** (12-25”), This method is used by those who have no other connection to each other except to be in the same location at the same time. When we are in public situations, it is important to keep a distance between us and strangers around us. We begin to feel crowded and annoyed when this distance is violated. Kopec, (2006). See figure 4-6.

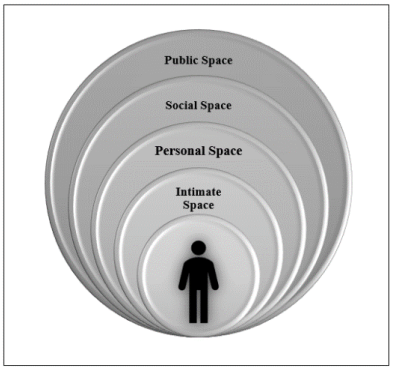


Figure 4-6: Demonstrates a visitor's interpersonal distances

It is important for designers to consider proxemics when designing exhibition spaces indoors and outdoors due to its proven effect on social interactions and behavior.

Environmental psychology holds that every person is surrounded by invisible shelters or multiple shelters that allow him to realize and perceive his identity. Every person and every culture have their own personal protective shelter. They also differ from period to period. Hall, (1969).

In order to achieve privacy, you must find a balance between privacy and social relationships.

4.3 Aesthetical Meaning

Aesthetics is the study of how humans perceive appearance and how they perceive, feel, and evaluate objects. This study of aesthetics brings us into the world of cultural criticism and artistic theory. The debate never ends about whether everything is essential in esthetics or whether beauty depends on the individual, "beauty is in the beholder's eye", as Hassenzahl, (2010) points out.

Don Norman, (2004) also emphasizes the significance of the psychological, ideological, and physical factors that affect how much enjoyment we gather from certain interactive situations.

According to Van Damme (1996), the conventional concept of aesthetics has placed a strong emphasis on the notion of beauty and the philosophy of art. Philosophy of beauty serves as a judgment for evaluating aesthetics.

Although beauty and taste are often associated with aesthetics in our culture as visual theories, the Greek word “aisthetika” means "that which is noticeable by the senses." As a concept evoked from all senses, including sight and touch. Humans employ these senses to judge an object's sensory worth. Macdonald, (2002, p. 113-123).

Because "aesthetics" can be a key to a more fascinating future, I would like to sense aesthetics as a simply cognitive value that serves as a tool for behavior control in an emotionally neutral manner. For this reason, we must instruct our students to treat every aesthetic discovery seriously and to use it within a larger social framework.

Investigating trends and shifting values is part of aesthetic analysis. It can provide information about the present we are planning for as well as the kind of future we might aspire to. Franke, (2021, p. 436).

The "four keys of pleasure" idea, which Nicole Lazzaro, (2012) created, establishes a connection between enjoyment, engagement, satisfaction, and emotion. She notes that these emotions cause significant changes in one's internal experience, which facilitate enjoyment. Emotions are essential for motivation and awareness, and they increase the appeal of learning to increase achievement.

In brief, aesthetics is the joyous mood that one visual aspect evokes as a very generic concept. It is impossible to achieve the influence of visual beauty without the synchronization of numerous factors. People's perceptions of aesthetic beauty may be influenced by the usage of shapes, colors, and materials. It is a challenging problem since the right arrangement of works or elements can produce the ideal design visual.

According to Markovic (2012, p. 1-17), Roddy and Furlong (2014, p. 70-77), aesthetic experience is not necessarily a pleasant or unpleasant experience. The process involves intense attention, extended cognitive engagement, as well as affective responses.

For example, Leder, Belke, Oeberst, and Augustin, (2004, p.489-508) proposed a model for describing the way that information processing during an aesthetic experience on three levels: perception, cognition, and emotion.

The aesthetic experience in the heritage context is multisensorial and can be intuitive, according to Annamma Joy and John Sherry., (2003, p. 259-282). Clause-Christian Carbon and Martina Jakesch, (2013, p.2123-2133), speak about art and beauty as a personification of imagination. Carbon and Jakesch, (2013).

Modern exhibition design benefits from the fact that designers can more effectively combine the freedom of art with new technology and stretch the boundaries of design from a perceptual perspective, making it seem more calming and enjoyable when compared to earlier exhibition designs. Designers must therefore possess not only a diverse set of design methods and execution methodologies, but also the ability to think creatively, grasp several business disciplines, and effectively integrate various components. The qualities of the exhibition can only be conveyed by concept works in this way, as well as a particular level of visual attractiveness, which in turn satisfies the psychological demands of visitors, whose expectations in terms of aesthetics are always rising.

In addition to the aesthetics and the spatial placement of the objects, the success of an exhibition is also determined by the relationship between the objects and the audience. Frey, (2006).

According to Leslie Bedford (2014, p. 16), the process of creating an exhibition can be reframed in terms of developing an aesthetic experience, in which design facilitates the experience by utilizing the language of the arts with objects that are meaningful, narratives that arouse strong emotions like empathy, and metaphorical play to create new connections.

I believe that the quality and beauty of the finished product, as well as the authenticity and spontaneity of the creative design process, are the main concerns of designing annual exhibitions.

In order to achieve the benefits and objectives, the annual design of the exhibition often pays close attention to the presentation of the displays in a clear and uncomplicated way. The final exhibition contributes to creating visual beauty, which makes it challenging for designers to fully manipulate their concepts and inventions. The aesthetic appeal of design works must be enhanced through careful material manipulation to prevent limitations imposed by the materials from damaging creative ideas and design concepts.

Bohme, (1993), Bohme and Thibaud, (2016) Consider atmosphere to be the intermediary between human states and the environment, in a new aesthetic that's based on the relationship between the environment and the human state. Bohme's new aesthetic, which layers experience with sensory experiences outside of the visual, creates new opportunities for comprehension, enjoyment, and insight.

Gao Xiaoyuan, (2016) explains the law of essential factor coordination in the teaching of public aesthetic education courses at universities by referring to p.113-115, the aim of aesthetic education for students is to improve their feelings, expressions, appreciations,

and creations, as well as fostering a harmonious development of morality, intelligence, and beauty. In terms of the college dimension, the general education curriculum should also be directed by the principle of "great aesthetic education," meeting the requirements to the educational objectives of the general course, combining curriculum categories and concepts, and inspiring teachers to innovate a new teaching style. Su, (2020).

These aesthetic principles didn't require a painting on the wall or a figure on the sideboard as proof. It could be said that the interior had evolved into a symbol of taste and social standing. Written by Norwegian Odd Brockmann, (Cited in Kleinman, Merwood-Salisbury, and Weinthal. (2012, p.26).

It is the job of the designer to bring a touch of sensuality and aesthetics to a solution, to orchestrate the relationships between an individual and an object or experience. As a result, in

addition to the competitiveness that aesthetics adds in markets composed of what you might otherwise consider to be comparable products and services, this aesthetic dimension needs to be discussed in relation to both design thinking and design management. It should not be seen as a goal, but rather as a way to improve human performance, the perception of the quality of public services, and the user experience of any given transaction. Mozota, and Amland, (2020).

Understanding visual and aesthetic appeal is frequently necessary when designing for people. Good design always involves the ability to communicate, both internally with your team and externally with potential end users. Members of the team must interact with one another in order to present ideas, clarify tasks, and outline solutions. Kaiser, (2019, p.2,3).

Users' emotional pleasure is greatly influenced by aesthetics, and an interior designer's ability to successfully achieve a space's aesthetics depends on how well they comprehend how others perceive beauty and expression. As a result, when we look into how people define beauty and take that into account, the aesthetic status of the area will be correctly maintained. The designer must be aware that the definition of beauty varies depending on time, place, context, and purpose. These design characteristics go beyond practical and structural considerations and are linked to the unique way the design communicates with the human senses.

4.4 Summary

When we create the environment in which we live, we also create the biological, intellectual, moral, and aesthetic aspects of who we are. It involves modifying and enhancing the medium in which the human organism lives.

In my opinion, the design profession needs to move past the conceptual constraints of 20th-century thought and its reductive methodologies and adopt a way of thinking that is in line with the recently discovered facts about ourselves, centered on how people interact with their environment, and that fully acknowledges our biological, affective, aesthetic, social, and cultural dimensions. Mallgrave, (2018, p.9,43).

Creative thinking is dynamic and adaptive to the project itself and the people involved since it acknowledges design skills, methodological choices, the correct mentality, and culture. A framework called "design thinking" was created to guarantee executive support, strategic consistency, stakeholder participation, and design quality in all organizational actions.

While achieving design excellence calls for comprehensive control of the resources and creative energy used in development and transition processes.

It is our goal to show how design thinking and design management are equivalent to design excellence, thus we are studying this new approach to design as an integrated business case instrument rather than simply exploring the business case of employing design as an add-on. It adds a new larger of framing challenges, improving ideation, and providing tangible dimension to strategic development, innovation, and organizational change, which improves the thinking of the most teachers. Mozota and Amland, (2020, p.1-11).

PART II. PRACTICAL APPLICATIONS

CHAPTER 5: Overview

This chapter introduces the practice/ action element of this study progressed in two phases:

1. Exploration of the Mission, Vision, Goals, & Value of University of Petra.

2. Exploration of the Annual Exhibition Guidelines of University of Petra.

PART II. PRACTICAL APPLICATIONS

5. CASE STUDY: Students Annual Exhibition of Petra University as a Role Model.

A fruitful and exciting method of conducting research is to regularly visit museums, exhibitions, and other cultural venues while also getting ready for annual exhibitions. These activities can offer valuable chances to interact with curators, and other students to see a variety of exhibitions and displays in action and discuss various curatorial methods and styles as a group. It is crucial that curators properly organize and carry out pre-site visits before starting research. This is an important component of the curators' preparation and will allow them to gather information to effectively prepare the group visits.

Design aims to draw attention to gaps in the argument, offer fresh conceptual frameworks for design work, and comprehend the meanings of design work. Future design issues include the interaction between design and other academic disciplines in terms of knowledge and understanding creation. In the same way that design objects can serve as both a means of reflection and solutions, design is both a topic of study and a service. Therefore, designing involves not just developing the world but also recognizing it.

In our capacity as art and design universities, we are interested in issues such as how practices and aesthetics can develop from such contexts, how creative methods, models, and results might be communicated and critically discussed, and what potential new fields of work and knowledge may result from them. These issues go beyond the practical application of our ideas.

If we were unaware of the potential of certain designs to encourage a lasting, constructive transformation of society, we would not be a good institution. We are less interested in developing new categories when teaching students in our subject and conducting research in this area than we are in putting current design knowledge and expertise to inventive, professional use in socially relevant ways. Franke, (2021, p.84-85).

It is evident that focusing on objects from this angle begs the question of what sort of knowledge we are working with? Can we discuss knowledge that cannot be put into words? If so, what standing would such knowledge have both in the academic community and in how crowds interact with the exhibition?

The emphasis, however, is on using interactions with things and materials as a fruitful approach to get new insights rather than on the representational characteristics of such material encounters. Bjerregaard, (2020).

Collaboration between partners in universities and exhibitions is increasingly seen as a crucial way to show how vital both are to society. Building new audiences, improving visitor experiences, expanding visitors' knowledge, and advancing academic insights and professional expertise are priorities when working on research projects with universities. These projects also provide institutions with powerful settings for examining informal learning and an ideal setting for developing theoretical concepts of embodied experience.

When new technology or educational activities are introduced and explored at exhibitions, these collaborations are frequently arranged utilizing some type of design-based approach. Achiam, Haldrup, and Drotner, (2021, p. 149).

Annual, national, or regional exhibits were the most common way for artists to sell their work and display it, but starting in 1851, these global gatherings were more frequently referred to as "expositions" or "exhibitions" of education than of business, both Facos, and Arnold, (2018, p. 73-74).

Assembling objects has become a common ground for researchers to work together on the central question of what represents or makes an object and what counts as an object at the university of Petra. The exhibition team created new interpretations of both objects of materials by assembling and juxtaposing fresh works of art and objects from the student collection.

The exhibition encourages us to search for further forms of expressiveness in objects. The ability to challenge our preconceived concepts of objects and look for new consultants who may offer fresh interpretations is what the partnership between the university of Petra and the University of Complutense might appears to bring to the exhibition-making process for example.

This occasion serves as the institution's public face and serves as more than just a "showcase" for specific students or groups. This is significant because it establishes a connection between the institution's mission and reputation and each student's artistic output and potential future career through the student exhibition in general.

The belief and understanding that knowledge and learning are shown materially in public is relatively special to exhibitions, which normally involve the conceptual and stylistic standards of contemporary art and exhibition practice.

With the help of the learning outcomes and evaluation standards, the degree show is institutionally articulated in pedagogical terms. These outcomes are the declared objectives that should be supported by the final submission: "the exhibition," but how they operate and are interpreted in relation to display is not always obvious.

In respect to the student exhibition, the faculty should be able to communicate and interact with the students about how we are considering exhibiting and working to convey its significance and critical potential for artistic practice.

We must understand the "student-exhibition" as a potentially self-reflexive tool in the discussion of possible working techniques and tactics to integrate educational goals with political and socially relevant ones.

The exhibition(s)' critical and pedagogic potential should be fully activated for students as a learning experience; this will allow us to extend our understanding of this aspect of art and design pedagogy and make it available and critically active for students and the art world in the future.

Both end-of-year and end-of-program exhibitions, which take place after the degree is granted but before the BA or MA, are frequent. They throw open the doors to the workshops, ateliers, studios, and rehearsal rooms of every faculty department for this social gathering that has nothing to do with assessments. Hjelde, (2017).

5.1 The University of Petra: Amman-Jordan. Introduction.

The University serves as a center for knowledge creation through research, talent development, knowledge application to new technologies, and technology transfer.

Therefore, the University of Petra "UOP" makes advantage of its welcoming campus to free people's minds and open them up to new worlds of philosophy, logic, and cognition. It offers an engaging setting with opportunities for free thought, research, interactive learning, and blended learning. See figure 5-1.

Figure 5-1: Shows the main entrance of University of Petra

Our Mission:

In order to find answers to social issues, create new employment possibilities, and end poverty, the university is actively implementing an outreach program for community development and participating in regional and international sciences.

In order to do this, UOP has earned the ISO 9001 Management for Supporting Higher Education Certificate and the Higher Education Accreditation Commission Certificate of Quality Assurance. In addition, the University is ranked first runner-up among private universities in the QS Ranking. In terms of research and education, UOP strives for quality, relevance, and alignment. It also builds connections with business, the public and private sectors, and the general population.

The University of Petra ranked first among Jordanian private universities in the global green universities ranking "Green matrix" for 2020 and came in third place among Jordanian public universities and ranked 209 out of 912 universities globally. See Figure 5-2, and figure 5-3.

Figure 5-2: Shows the “Green matrix” of University of Petra

Figure 5-3: Using Solar Panels over all buildings of the university

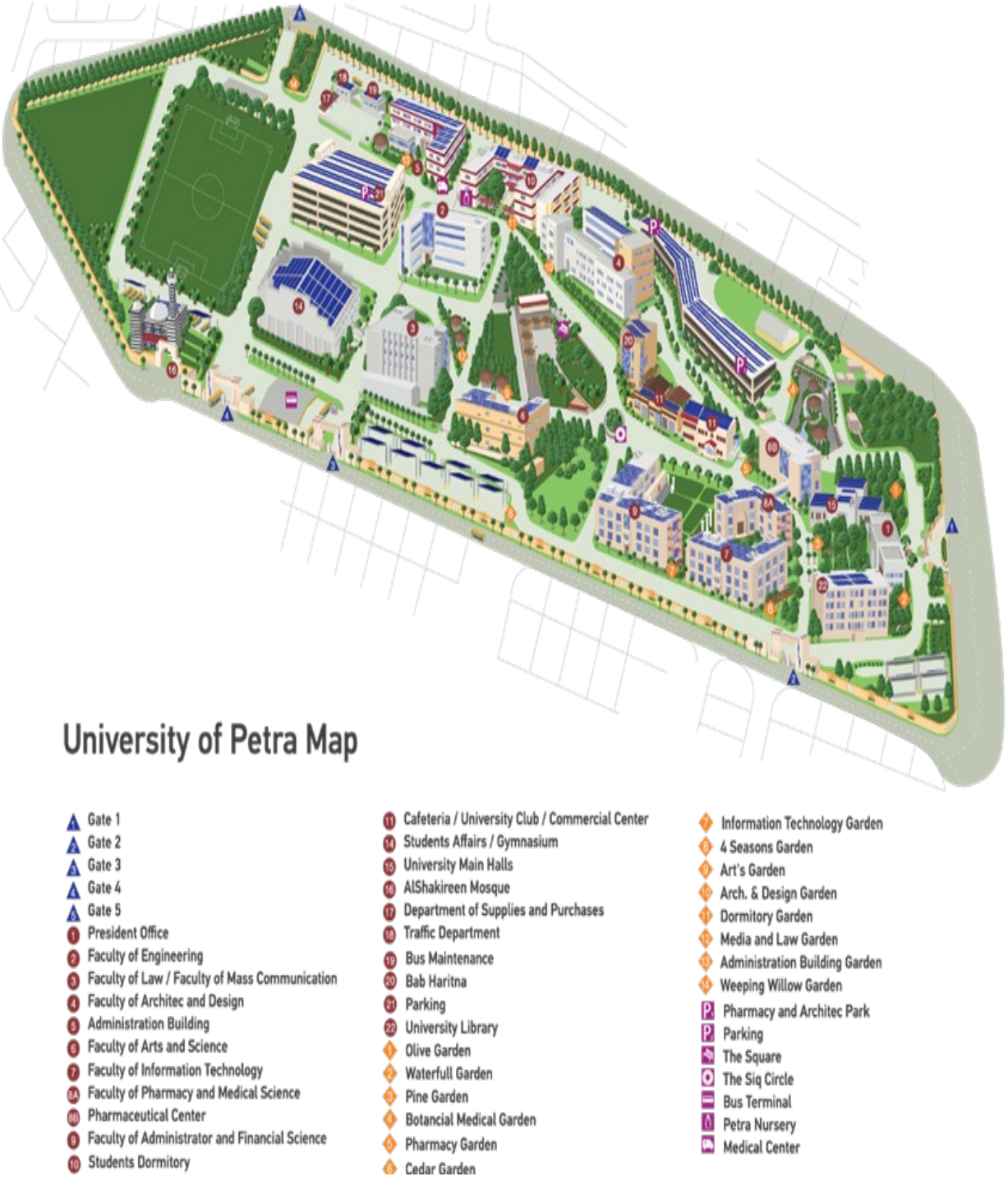


Figure 5-4: Indicates the master plan of University of Petra

UOP has evolved into a smart campus where students and faculty interact with knowledge to develop their cutting-edge skills with a goal of enhancing entrepreneurship, innovation, and creativity. This has been made possible by the development of e-learning, e-library, and high-speed communication facilities. See figure 5-5, and figure 5-6.

Figure 5-5: Shows the social communication areas of University of Petra

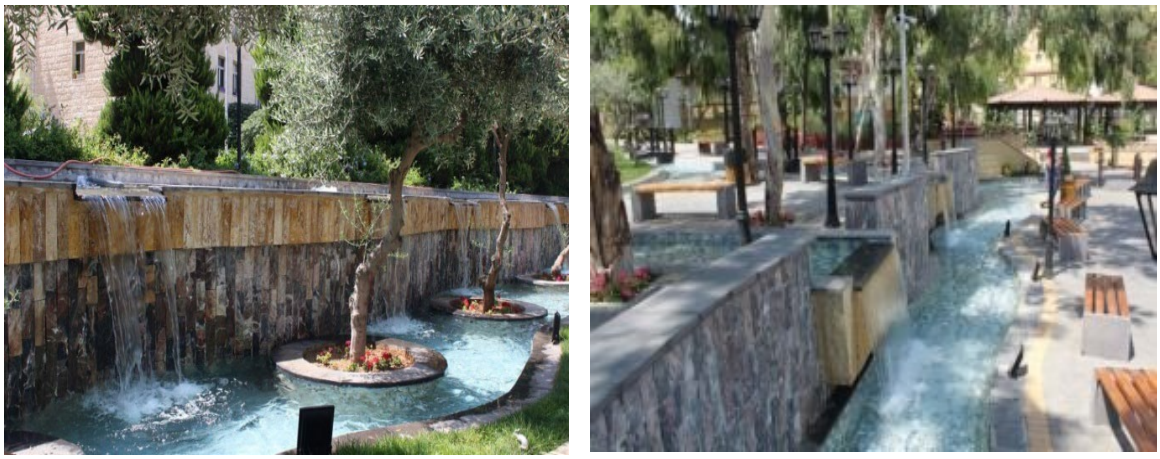


Figure 5-6: Shows the water features at the students' social areas

Located in West Amman, the University of Petra's friendly campus houses 8024 undergraduate and graduate students in the faculties of: Arts and Sciences, Administrative & Financial Sciences, Pharmacy & Medical Sciences, Information-Technology, Architecture and Design, Law, Mass Communication and Engineering, all equipped with two or more cultural communication theaters at the Petra University. See figure 5-7, and figure 5-8.

Figure 5-7: Shows the high-speed communication at University of Petra

Figure 5-8: Shows the cultural communication theaters at the University

Vision:

The University of Petra strives to be the "University of Choice" for students and intellectuals in Jordan and the surrounding area. Our Statements of Purpose to prepare graduates who can make meaningful contributions to their communities and play a key role in the advancement of our country through the creation and dissemination of information and technology.

In order to build the competencies of UOP members, provide active community service, and prepare its students to be capable of creative and critical thinking as well as lifelong learning in order to actively compete in the marketplace and workforces, we must work to create an academic, cultural, and social environment that develops quality learning, creativity, innovation, and research opportunities.

Goals:

- **Governance**

  The goal is to maintain a responsible attitude, accountable, and compassionate leadership and governance that is strategically focused to guide the institution toward realizing its goals and maximizing the use of its resources in order to continue its existence.

- **Academic environment & resources**

  To provide a dynamic environment for science by offering the tools and infrastructure needed for research, development, teaching, and learning.

- **Cultural environment**

  To encourage critical thinking, originality, freedom of speech, and community dialogue in order to create an active, and vivid cultural environment that benefits society as a whole.

- **Social environment**

  To create an environment where university workers can enjoy doing their best work and positively advancing their potential while also creating a happy and caring community inside the university.

- **Quality education**

  In order to produce graduates of exceptional academic excellence who can pursue lifelong learning, who can effectively proceed into higher education, and who can seek employment in the market, it is important to provide and promote excellent education with a suitable variety of well-reviewed programs.

- **Build-up competence**

  To create opportunities, programs and incentives that allow university staff and students to improve their skills, expertise, proficiency, and promotion prospects.

- **Research & outreach**

  In order to foster chances for scientific research, unique discoveries, technology transfer, and active involvement in conferences and conventions, it is necessary to make financial and material resources available, build connections with the outside world, and promote innovation and novelty.

- **Community service**

  Assist scholars and non-scholars in assessing and enriching the socio-economic aspects of the local community.

Values:

- Knowledge is the purpose of learning.
- Assuring equal learning and success opportunities.
- To become a better learner.
- Motivation for lifelong learning among members.
- Diversity, plurality, and the opinions of others must be respected.
- Teamwork and collaboration are encouraged.
- Creativity and achievements should be treasured.
- Promoting intellectual freedom.
- Social justice and social responsibility are fundamental to our existence.
- Leadership development and accountability are our top priorities.

5.2 Faculty of Architecture and Design

The University of Petra created the Faculty of Architecture and Design in 1991. It has two departments: architecture and interior design. The Graphic Design Department was added in 2003, and the Amination and Multimedia Department was added in 2016.

The credit hour and semester systems serve as the foundation for the study plan. In the four majors, the faculty offers bachelor's degrees. In this year 2023, the faculty starts the master's degree for both departments: Architecture and Interior Design.

The faculty provides 23 studios, seven computer labs, an acoustics lab, a silkscreen lab, a ceramics workshop, a photography lab, and a model making lab, in addition to a large studio for fine arts, a carpentry and metal workshop, and a permanent exhibition hall for students' projects, due to the importance of the infrastructure and equipment needed to teach the theoretical and practical academic requirements of the four departments.

The faculty supports the teaching staff's participation in international conferences and scientific research. It provides scholarships to outstanding graduates for continued education at prestigious universities around the world. See figure 5-9.

Figure 5-9: Introduces the faculty staff and students

The department has collaborated on international research initiatives with universities like UCL, Oxford, Reading, and Berlin, to name a few, and was awarded the Newton Fund Prize 2020, which is yet another indication of how seriously we take our work.

Additionally, students from the four departments have consistently taken home national and international honors, which reflects our university's high standards.

Through student initiatives that are primarily focused on meeting the present and future needs and ambitions of society, the faculty is accessible to the neighborhood. In order to examine students' proposed projects fairly and impartially, it also creates assessment committees (Juries) made up of highly qualified individuals from both inside and outside the faculty who are experts in respective subjects.

Annual student exhibitions are held by the faculty, with academic representatives representing the many schools of art. This would paint a vivid image of the faculty's cultural diversity and aesthetic diversity.

5.3 Annual Exhibition Guidelines

A clear image of the faculty's artistic diversity and diversity of schools of art is provided through the art exhibitions held for students and faculty members by the faculty of Architecture and Design, which is accessible to the local community. During the academic year, students in the departments of architecture, interior design, graphic design, and animation produced a variety of works and projects, which are currently on display. This collaboration between the four departments creates the diversity in ideas and themes that are supported by the faculty team members, especially the annual exhibition team members, and with the help of the student committee group " ARCHI GROUP". See figure 5-10.

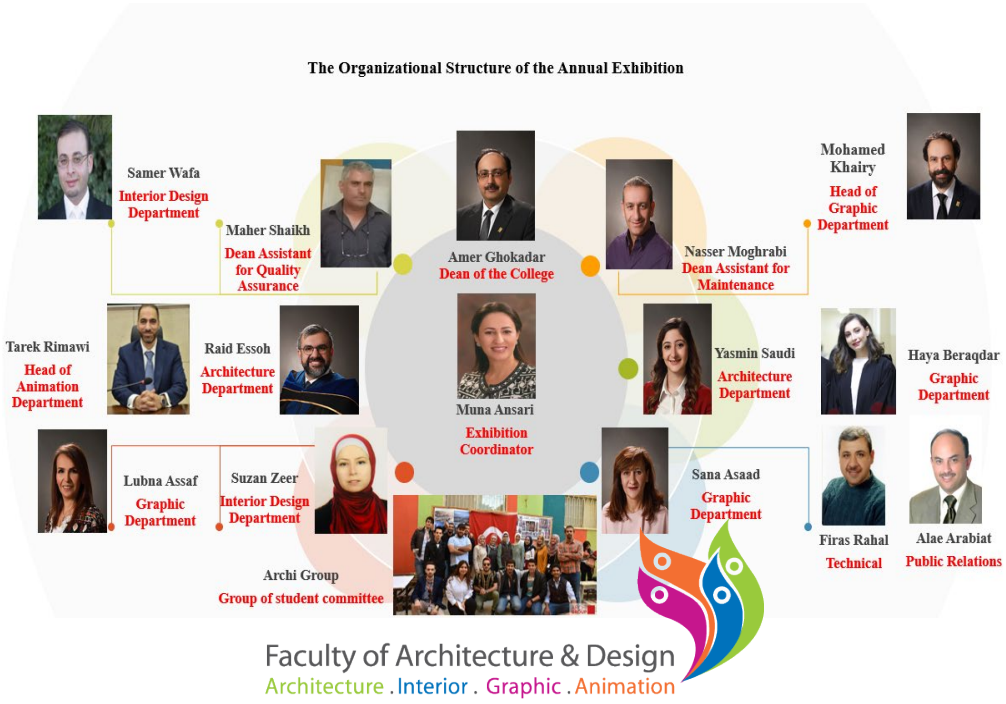


Figure 5-10: Presents the team of the faculty members of annual exhibition

The exhibit encourages understanding of reading's universal and ongoing importance in the digital age. It also looks at the diversity of spectacular reading experiences that new technology makes available, including immersive narratives that change in response to reader feedback, large-scale read walls, and interactive readers.

For this purpose, there are some general questions regarding the exhibition to follow before starting the design process as indicated in the following table 5-1.

Where will it be taking place?	University of PETRA (Uop.edu.jo) College of Architecture & Design/ Exhibition Hall/ Ground Floor.
When will it occur?	Spring of Second Semester. See appendix 7.
Who are the target group?	Students, employees, field specialist, other interested individuals.
Why it is different?	New adaptations: concepts, technologies & presentations. New experience.
What's our expectations?	Community contribution, students & visitors interaction. Seeking job opportunities for our graduated students.

Table 5-1: General questions regarding the annual exhibition

Like other applied fields, exhibition interior design has a defined career cycle that requires training and work experience before to being eligible for certification. It is believed that interactive exhibits in science and technology will only maintain their position if their design and implementation are based on a paradigm that supports both enjoyment and learning and is empirically supported. John, Gilbert & Susan Stocklmayer, (2001).

As a result, new displays are now built as dialog centers that enable intimate interaction with students who are learning-based to pose their objects for display.

The "education" function, which has nearly always been one of our primary roles, is the most important exhibition function. Exhibitions evolve the physical architecture in a contemporary manner and reimagine them in a way that prioritizes individual experience and visitor interaction throughout the time they spend there, in addition to the educational facilities they offer visitors.

By introducing new dimensions for exhibition functions, interaction between exhibition and visitors, and interaction and contact between visitor and object, the use of exhibition technology enables things to be viewed using new techniques, to understand this, see figure 5-11, and 12.

Figure 5-11: Introduces the new dimensions for exhibition functions

Figure 5-12: Demonstrates the new vision of presentation

Organizations like exhibitions and galleries have social importance and the potential to improve community life. Dodd and Sandell, (2001).

In addition to requiring physical presence, virtual reality also gives users a secure, prosperous setting in which to see the virtual world rather than the real one.

With the appearance of quickly evolving technology, a large number of new initiatives and products will be invented in exhibitions every day at art fairs throughout the world.

In addition to being just as educational as traditional exhibits, interactive exhibition systems built on the “Internet” are also more adaptable, removing conceptual and geographical constraints and enabling people to visit exhibitions whenever and wherever they choose. Hein, (1998) and Miles, (1992).

The large mural, text graphics, and audio system at the main entrance to the exhibition inform visitors about what the exhibit they are about to visit is "experimental”. See figure 5-13.

Figure 5-13: Indicates the system used in presenting student’s works

The application design for an experimental approach to displays is the subject of this annual exhibition. More specifically, it addresses numerous ways that visitors can contribute to exhibition design and how technology might support educational activities that are related to exhibitions. Boisvert, and Slez, (1995).

Based on the software platform that incorporates space design features, multimedia and the virtual exhibit scene system were developed. Several innovations have been made, such as the 3D modeling tool, texture processing, and (VR) technology are adapted.

Virtual Reality (VR) is also an important aspect: Which was implemented for presentation of student projects. 3D models can be viewed immersive using stereoscopic projection systems such as Head Mounted Displays (HMD). See figure 5-14, and 15.

Figure 5-14: Proves the importance of using virtual reality in an interactive way

Stereographic renderings allow the observer to understand the form and design spatially. Through the Virtual Design exhibition, interior design exhibitions can show their high-quality items to visitors in a new and interesting way. A student's work demonstrated how virtual reality can be used to furnish a space in an interactive way.

It turns out the most important aspect of these VR devices is visitor-to-visitor interaction. Student projects have benefited from the use of these technological components. See figure 5-14, and 15.

Figure 5-15: Shows the experimental approach to displays student's works

Choosing the color scheme (purple & yellow) effectively brings more beauty to the display components. There is something very spectacular and bright about purple and yellow; these colors complement each other well, resulting in a balance inside the exhibition hall. This indicates that when creating an interior, the yellow color must be the basis, the background, and the purple color must be used to contrast. Purple color looks much more dynamic especially when combined with yellow. See figure 5-16.

Figure 5-16: Indicates the importance of using two contrasting color schemes

Charlotte Cosby, head of creative at Farrow & Ball, explained that when it comes to making color, people aren't really thinking about the end use, but rather how to convey and express current spirit through color. The goal of a color scheme, according to Joa Studholme, is to create a cohesive look that includes every object in the room, including artwork. Studholme and Cosby, (2016).

In most cases, visitors overlook the craft of choosing colors as a supporting act to curate works — but for Prem Krishnamurthy and others working in exhibition design, choosing the right background can make or break a show. Krishnamurthy, (2018).

There is no language like color. It's a powerful, universal, nonverbal language. A color expert, Angela Wright, believes that color is the first thing we notice when looking at anything from a scientific perspective. This makes it possible for us to instinctively recognize joy, pleasure, threat, and danger. Wright, (1995). See figure 5-17.

According to Aileen Kwun, it’s an important aspect of exhibition design and curation to consider atmospheric color when planning an exhibition from the very beginning. Kwun, (2018).

Figure 5-17: Describes the two-eye catching interior elements: the added walls and the big mural

The purpose of design is to improve communication between people (visitors, audiences) and student projects, by making big differences between traditional presentation methods and new technologies. As a result, the student's project must be adapted (using 90 * 90 cm frames) to inform the user of the important features of the projects in a unified way, and one language of presentation. See figure 5-18.

Figure 5-18: Explains the use of 90*90 cm boards for presenting student's projects

5.3.1 The Exhibition Concept's Demands

The exhibition concept's demands were designed and distributed to achieve the following:

- The importance of recognition.
- Developed navigation system (to find directions).
- Direction that is structured.

One of the key concerns for the exhibition was Internet Output. The first approach to implementing these requirements was to divide the show into several hyperlinked zones rather than design it as a single building, and this idea matches what was proposed by: Mine, Brooks, and Frederick, (1997).

To engage the audience with each showroom, a unique sound system was created for this purpose. The project's objective was to present interior design in a novel way by equating it to four zones for each department. The visitor walks through virtual showrooms inside the exhibition which are fitted with the (VR) devices and headsets. See figure 5-14.

Real models from the students' work were displayed on LCD monitors in the exhibition as a 3D modeling display, as Brugger suggests in his book in, (1994).

Given the homogenous distinctions among the four departments of the college, each showroom's exhibition design has a unique design approach. See figure 5-15.

Moreover, there were three main components found for the analysis of the interior environment exhibition:

Identity: Objects in background: (Purple and Yellow Color Scheme). See figure 5-16, and 17.

Structure: Object in relationship to each other: (Adding Freestanding Partitions). See figure 5-11,12, and 17.

Meaning: personal, societal, or figurative belief: (Adapting New Technology of Presentation Which Creates a Lively Atmosphere). See figure 5-14, 15, 16, 17, and 18.

The table below 5-2 shows the relationship between spaces at the exhibition main hall and the human activities in the social context, which shall explain later the importance of taking this in a serious manner when starting with interior design process and as a practical helper for the curational work.

Space Control	Human Activity	Description
Entrance Space (Entrance Hall)	Walking, Gathering	Acceptable walking space for most People especially for the first visit to control as starting point.
Interior Design Space (Interior Design Department)	Vision, Enjoying, Walking	Rectangular space allowing People seeing and maneuvering.
Graphic Design Space (Graphic Design Department)	Communication, walking	Rectangular space comfortable for touching projects.
Architecture Space (Architecture Department)	Vision, Walking, Enjoying	Rectangular space for perfect new experience of the (VR) technology can perceive persons facial expression.
Animation Space (Animation Department)	Vision, Hearing, Enjoying, communication.	Squared space effective space to hold & engage conversations with people & monitors as well.

Table 5-2: Relationships between space and human activities in social context

According to this table we were able to understand how the main space of the annual exhibition was divided into four sections depending on the four main departments available at the faculty of Architecture and Design.

In addition, to that we can trace the human activities: walking, gathering, enjoying, communicating, hearing, setting…etc. among these particular spaces depending on the space description. See figure 5-19.

Figure 5-19: Shows elements used to trace human activities in the exhibition spaces

Exhibition was devoted to serve four department of the college as shown in the table 5-3 below:

Exhibition Hall	Location	Width	Length	Height	Total Area m2
Entrance	Ground floor	7.85	12.50	2.90	98.125 m2
Interior Design Area	Ground floor	3.00	18.60	2.90	55.80 m2
Graphic Design Area	Ground floor	3.00	18.60	2.90	55.80 m2
Architecture Area	Ground floor	4.00	10.00	2.90	40.00 m2
Animation Area	Ground floor	2.50	13.00	2.90	32.50 m2

Table 5-3: Shows the distribution of spaces allocated to each department at the college

According to the information in the previous table 5-3, we can understand that the spaces were equal for both Interior Design Department and Graphic Design Department (55.80 m2) , due to the occupancies of students on each department, (40.00 m2) for the Architecture Department, and (32.50 m2) for the Animation Department.

On the other hand, the exhibition main Entrance occupy the greatest part of the exhibition (98.125 m2) which explain the importance of this part of the annual exhibition as a focal point, starting point, and gathering area as well.

Generally, the entrance space includes the following areas: main entrance, lobby area, lecture room, staircase, silk print workshop, clay workshop, exhibition hall, freehand studio, computer and acoustic labs, boiler room, and continuing education resource center, as well as toilet that already exists in the building as one of the prerequisites for spatial configuration. See figure 5-21.

5.3.2 Response to Design Strategies

To enhance the comprehensive standard and design strategies of the annual exhibition, I focus on six major aspects like planning and designing in a significant way as the following:

• **Distance control:** it deals with the design and layout of every exhibition space as a zoning plan and bubble diagram. See figure 5-22.

• **Interior street space:** creating five mapping elements (path, edge, node district, and landmark). Path: public hallway in between the exhibition booths, node: intersection or transit stops, district: cluster of exhibition booths, edge: area in between the public area and exhibition booths, and landmark: appealing and unique vision to attract visitors. See figure 5-23, 38,39,40, and 41.

• **Modular design:** All visitors need to have ease and flexibility while navigating space.

See figure 5-24.

• **Interior architectural elements:** added partitions, white cubical forms, screens, signage system, and furniture are all about adding more value and mobility while using the settings.

See figure 5-25.

• **Sequence directions:** about continuity in object presentation that creates motion or atmosphere or provides direction. See figure 5-18.

• **Social considerations:** the show themes and environment are all about blending interior design elements with visitors of various ages and interests. See figure 5-26.

The given pie chart 5-1, illustrates the comparability of various visitors with interior design elements with different ages in annual exhibition spaces, and the results indicates that a very large majority of participants were of visitors of the age between 18-24 of a percentage of 50% half visitors, while a significant proportion of visitors were around the age of 25-34 of a percentage of 17.5%, a small percentage of 12.5% of group age 35-44 year, a minority of 10% at the age of 45-54, and a very small number of age 55 year and over with the percentage of 2.5%.

Most of the increase in visitors age of 18-24 year can be explained by the increase of students who are either participants in the annual exhibition or students from the same faculty or university students but in different specialties and are very happy to come and join the event. Whereas the decrease of percentage 2.5% depends on the lack of interest from other visitors maybe because they are busy with administrative or teaching matters or any other considerations that are difficult to predict. See chart 5-1.

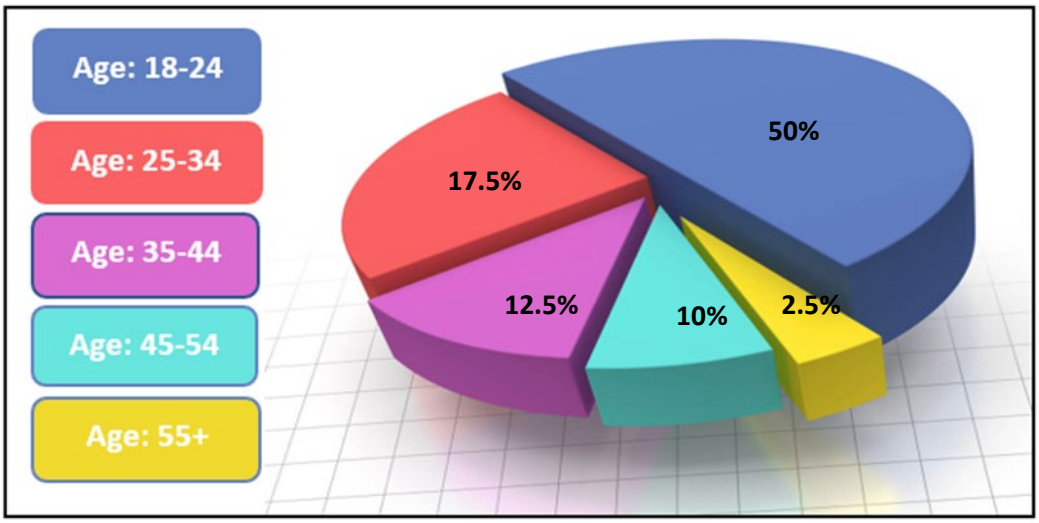


Chart 5-1: Pie chart upon age participants

For this reason, I tried to gather extra information about the satisfaction level of visitors who attended the event to make a brief understanding of what aspects were the most interesting and the least of importance or interest. According to Noriaki Kano, a professor of quality management at Tokyo University of Science, developed the Kano Model for product development and customer satisfaction in 1984. Know what your customers value before applying Kano Model Analysis. Make sure you don't assume you know

everything. Get their feedback on what they like, what they love, and what they dislike. By using surveys, you can approach your customers directly. Kano, Seraku, Takahashi, and Tsuji, (1984).

According to Kano Model, products and services have three attributes:

- **Threshold Attributes:** Customers expect these basic services.
- **Performance Attributes:** These add to the enjoyment of a customer, but they aren't essential. If you are delivering threshold and excitement attributes, some of these will need to be reduced.
- **Excitement Attributes:** Customers are delighted by surprising elements in a product or service. To conduct Kano Model Analysis successfully, it is crucial to understand the customer's experience and expectations, and to generate innovative ideas to improve the product or service. According to Kano Model analysis, the following table 5-4 are an example of how to measure the satisfaction level upon visitors by serving them to gather more information about your exhibition.

Describtion of features		Like	Expect it	neutral	dislike
1	InteractiveTechnology	✓			
2	Visibility & Accessibility		✓		
3	Unique Design	✓			
4	Striking Graphics	✓			
5	Creative Landmark			✓	

Tabel 5-4:Measuring visitors satisfaction level according to Kano Model

From the previous table 5-4, I observed the satisfaction levels of visitors regarding five descriptions of features:

1-Interactive technology: (VR, interactive screens, sound system and more), the visitors were very satisfied with the technologies used in the exhibition and delighted to have the chance to experiment with it closely.

2- Visibility and accessibility: (the main entrance, staircase, circulation routes and more) the visitors were satisfied but in a way they expected it as they were familiar with the exhibition layout.

3- Unique design: (added popup walls, students' tangible models and lighting system LED and spots) the visitors were extremely satisfied as the unique, innovative, and creative design elements that grab their attention and motivated more visitors to join the event.

4- Striking graphics: visitors were astonished by the striking elements used in the space like the use of famous quotes for very famous designers and architects, the signage system, color scheme (yellow and purple), and logo design. See appendix 8, and 9.

5- Creative landmarks: (handmade mural and calligraphic walls) visitors appreciate these elements but in a way they were neutral to it because it has been a regular ritual at every annual exhibition. In addition , the landmark space has always been a gathering spot and a social hub.

To add more interest and knowledge of the different sectors participating in the annual exhibition, I intended to consider the nature of the participants in the previous investigation as an important issue to understand the previous satisfaction level, whether they were students, employees, specialists in this field or members of the local community.

5.4 Annual Exhibition Plan Analysis

When it comes to the annual exhibition plan analysis, the upcoming table 5-5 describes and expands the understanding of the main interior design considerations by distributing them to the four basic departments of the faculty: Architecture, Interior Design, Graphic Design and Animation.

Space	Elements of Design	Schemes	Design Considerations
Entrance	**Color**	Neutral: gray color for most walls	Do not compete with exhibition theme, easily approach, and encourage conversation.
	Materials & Finishes	Painted Plexiglas for the mural	Good taste of design matching with exhibition soul.
	Lighting System	Artificial lighting, drop ceiling using white Florissant light	Low cost and easy for maintenance. Creating clear vision.
	Partitions & Screens	No partitions added, LCD screens hanging on walls	Clearly appear for all students and visitors.
	Furniture	Steel fixed chairs	Modern and matching with the exhibition thyme.

Space	Elements of Design	Schemes	Design Considerations
	Signage	Directions & Calligraphy on walls	Appropriate for way finding.
Interior Design	**Color**	Almost purple color for all walls except for some with yellow color	Moderate and do not conflict with the exhibition presentation.
	Materials & Finishes	Wooden (MDF) painted partitions	Wooden partitions hanging on the wall with floating look, carefully dealt with.
	Lighting System	Artificial lighting, Worm spotlights and indirect led with purple color	Create a dramatic look (day mood & night mood), easy for maintenance and add more value to the exhibition atmosphere.
	Partitions & Screens	Freestanding walls with accent color	Visually attractive, verticality added partitions with accent color.
	Furniture	Wooden flowers at some corners	Trendy looking, easily perceived due to its color and shape, flexible and adaptable in different space.
	Signage	Famous quotes and subject titles	Devoted from famous interior designers around the world, modern and trendy look.
Graphic Design	**Color**	Almost purple color for all walls except for some with yellow color	Add more value to the projects, matching with the color scheme of it, trendy looking and visually attractive.
	Materials & Finishes	Wooden (MDF) painted partitions	Wooden partitions hanging on the wall with floating look, carefully dealt with.
	Lighting System	Artificial lighting, Direct and indirect lighting system	Adapting both worm lights and purple led lights, soothing atmosphere.
	Partitions & Screens	Freestanding walls with accent color	Visually attractive, verticality added partitions with accent color.
	Furniture	No furniture available	Avoiding stoppage or conflict for the circulation root and pathways.
	Signage	Famous quotes and subject titles	Devoted from famous graphic designers around the world, modern and trendy look.

Space	Elements of Design	Schemes	Design Considerations
Architecture	**Color**	Almost purple color for all walls except for some with yellow color	Add more value to the projects, matching with the color scheme of it, trendy looking and visually attractive.
	Materials & Finishes	Wooden (MDF) painted partitions	Wooden partitions hanging on the wall with floating look, carefully dealt with.
	Lighting System	Artificial lighting, Direct and indirect lighting system	Adapting both worm lights and purple lead lights, soothing atmosphere. Appealing and unique.
	Partitions & Screens	Only Painted walls	No partitions added to encourage moving easily while wearing the (VR) technology, lively and vivid experience.
	Furniture	No furniture available	Open space for free maneuvering while wearing the (VR) technology, multimedia approach and trendy look.
	Signage	Famous quotes and subject titles	Devoted from famous architects around the world, modern and trendy look.
Animation	**Color**	Wight Cubes clear white	Do not conflict with the exhibition display,
	Materials & Finishes	Wooden (MDF) painted partitions	Added partition at the corners with LCD screens for displaying films.
	Lighting System	Artificial lighting, Neutral and worm	Natural lighting system, soothing and enhance the spatial definition.
	Partitions & Screens	Wooden partitions added, screens and headsets.	Wooden partitions are added to the two corners allowing visitors to use the head set and enjoy new experiences, modern, appealing, and unique.
	Furniture	No furniture available	Open area to create a lively ambience, mobile and multi-functioning, no need for any furniture layout.
	Signage	Famous quotes and subject titles	Devoted from famous animation designers around the world, modern and trendy look.

Tabel 5-5: Describes the main interior design considerations

Figure 5-20: Represents the faculty of Architecture and Design building

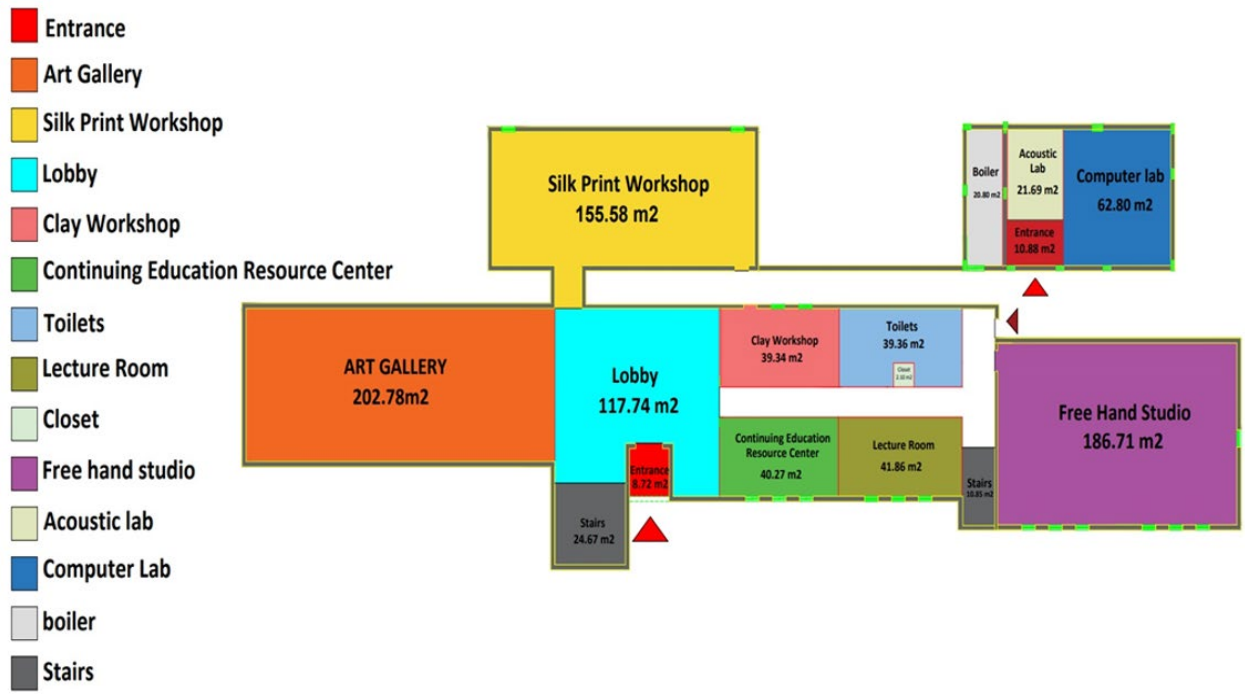


Figure 5-21: Indicates the zoning plan of the faculty's ground floor

According to the previous figure 5-21, the ground floor of the faculty is about a total area of 800 m2. almost, and distributed over the following halls:

- **Entrance:** the building has two entrances, the first one is the front door entrance and considered as the main entrance, and the second one is at the back of the building from the south area, both entrances are accessible for both students and staff. See figure 5-27.
- **Art gallery:** the hall is dedicated for every year annual exhibition for all departments of the faculty: Architecture, Interion Design, Graphic Design, and Animation. This hall is located near the main entrance and lobby of the faculty and very accessible for anybody from the faculty or any outsider visiting the faculty. See figure 5-28.
- **Silk print workshop:** where you can practice the theories of making different printing on different materials and making dolls and puppets etc. See figure 5-29.
- **Lobby:** where you can access easily from any direction you need. It normally holds the activities of students like bazaar, festivals etc. See figure 5-30.
- **Clay workshop:** this is a very specialized area where students, staff, any person who is interested in taking a course in making clay, is fully equipped with all needs. See figure 5-31.
- **Continuing education resource center:** this hall is our small library where anybody seeking any quick information and also fully equipped with all facilities needed. See figure 5-32.
- **Toilets:** for both genders furnished with hygienic tops and facilities needed.
- **Lecture room:** this room is mainly for lecturers from outside the faculty especially the part timers who occasionally come to cover some specific subjects when needed. See figure 5-33.
- **Free hand studio:** this studio is for all students of the faculty from the four departments as this course is considered a compulsory subject for all students of the faculty. See figure 5-34.
- **Acoustic lab:** this lab is where students are able to learn and practice on real and professional equipment's. See figure 5-35.

- **Computer lab:** the university pays the greatest attention to equipping such studios and annually updates and purchases the original programs required for learning and practice our students. See figure 5-36.
- **Boiler room:** One of the important things at the college is to take care of the proper atmosphere of heating and cooling for classrooms and laboratories, where maintenance and constant verification by the maintenance team at the university is always available, knowing that the university is fully served by solar energy cells available above all university buildings. See figure 5-37.
- **Stairs:** the college has two main staircases and two elevators that lead to all floors with ease and convenience.

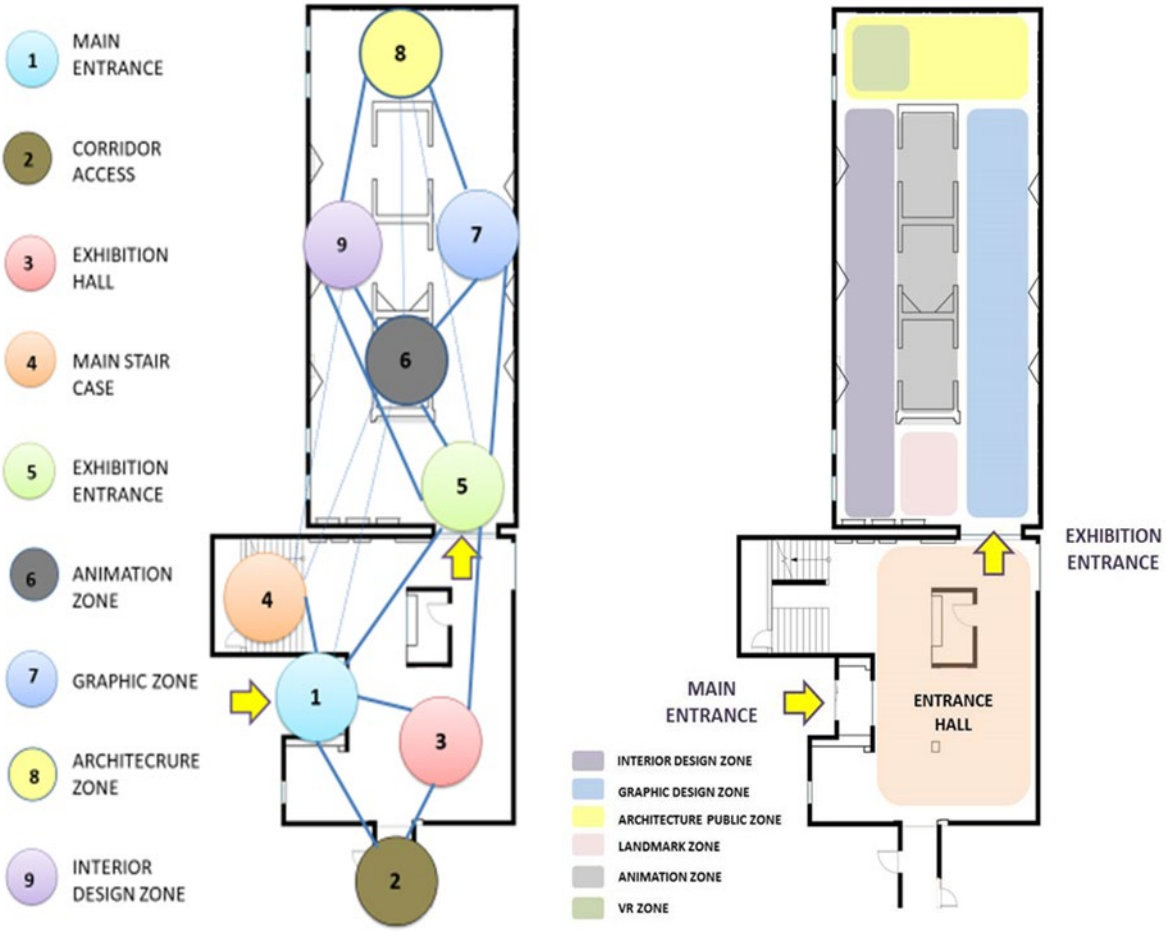


Figure 5-22: Indicates the zoning plan and bubble diagram of the annual exhibition

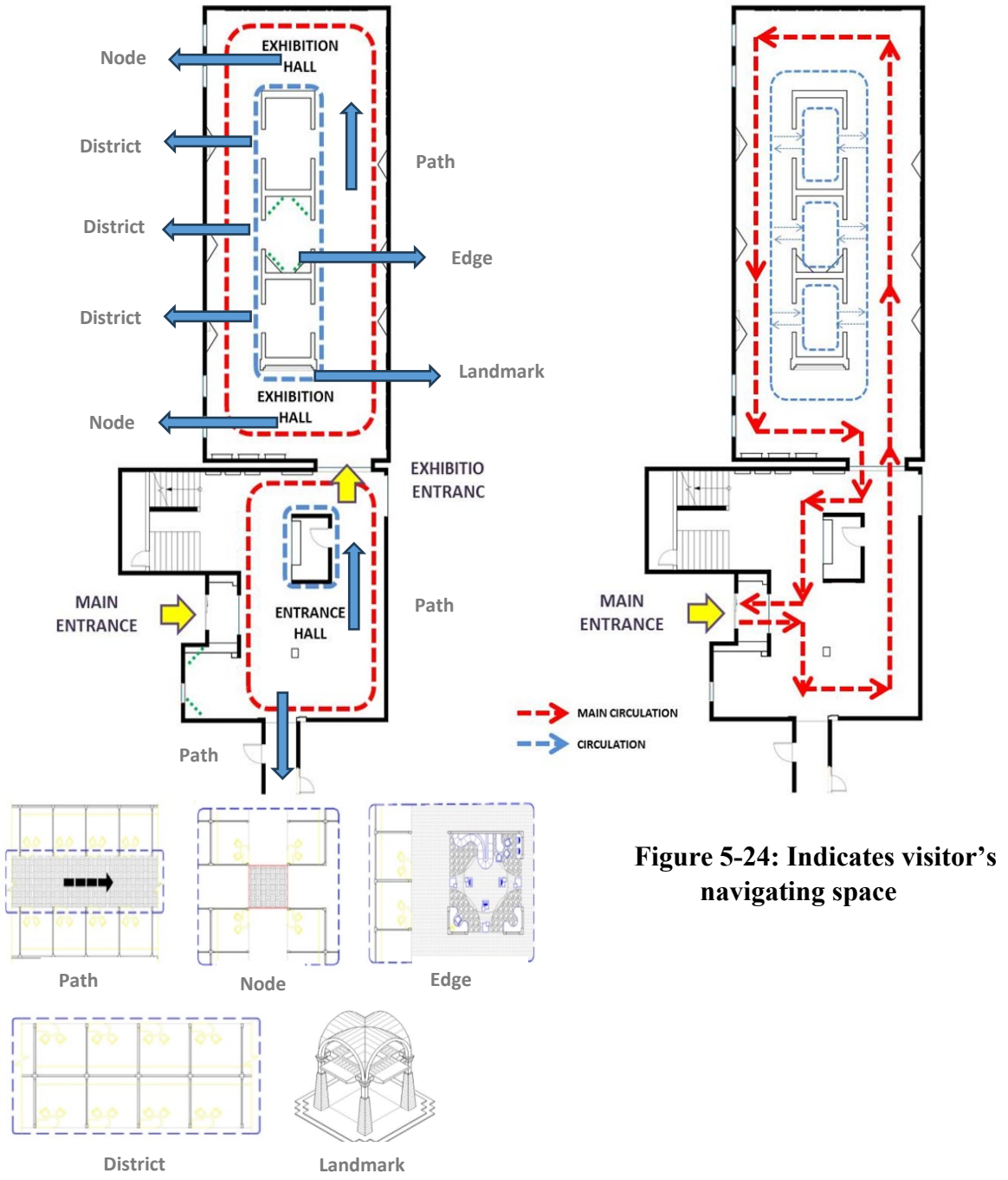


Figure 5-24: Indicates visitor's navigating space

Figure 5-23: Indicates five mapping elements

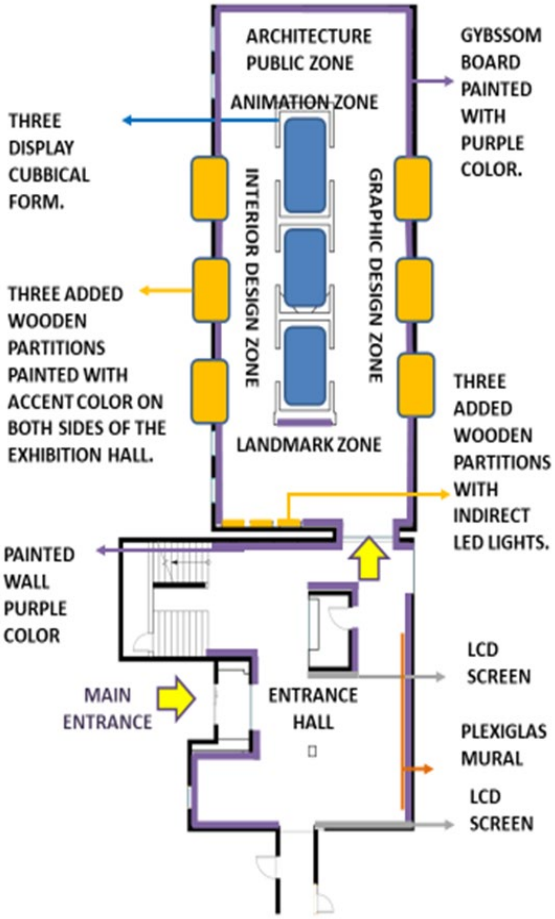


Figure 5-25: Indicates interior architecture elements

Figure 5-26: Presents blending interior design elements with visitors with various ages

Figure 5-27: Represents the main entrance for the faculty of Architecture and Design

Figure 5-28: Represents the art gallery of the faculty

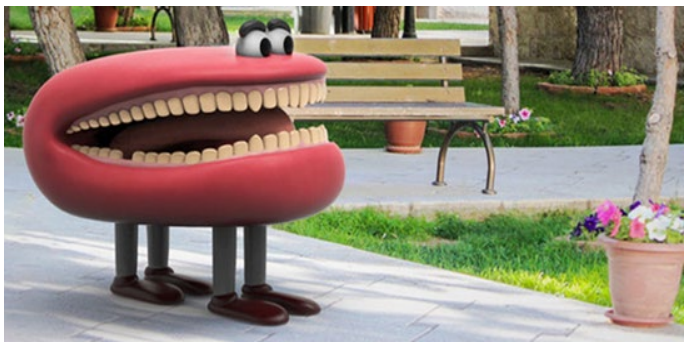


Figure 5-29: Shows the silk prink workshop

Figure 5-30: Represents lobby area of the faculty

Figure 5-31: Shows the clay workshop area

Figure 5-32: Shows the continuing education center

Figure 5-33: Introduces the lecture room

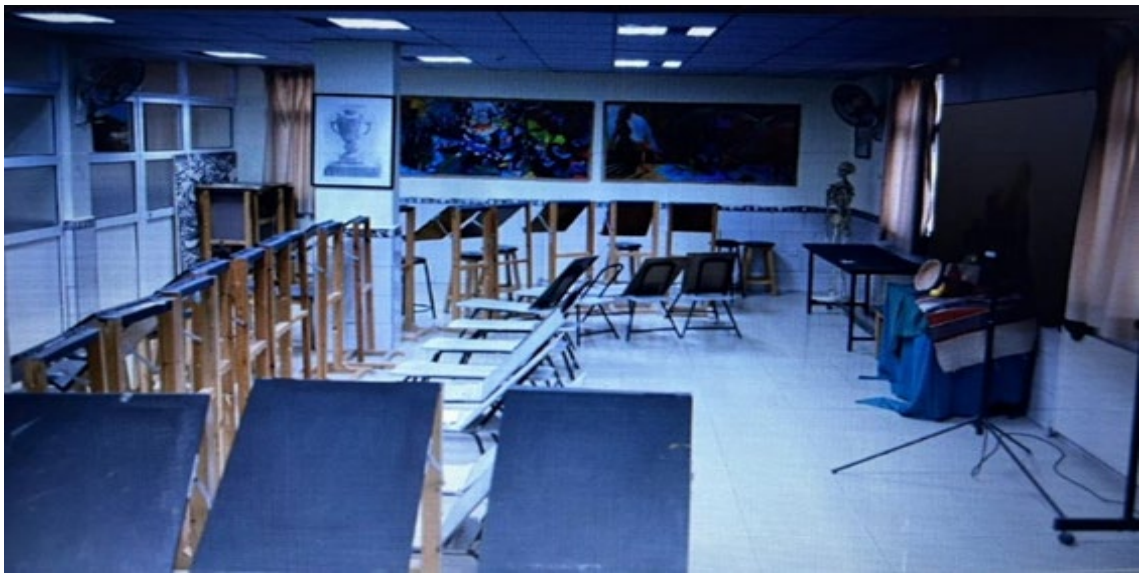


Figure 5-34: Introduces the free hand studio

Figure 5-35: Introduces the acoustic and lab

Figure 5-36: Introduces the computer lab

Figure 5-37: Clarifies the solar energy cells over the buildings

Figure 5-38: Explains the path mapping element

Figure 5-39: Explains the edge mapping element

Figure 5-40: Explains the node distance mapping element

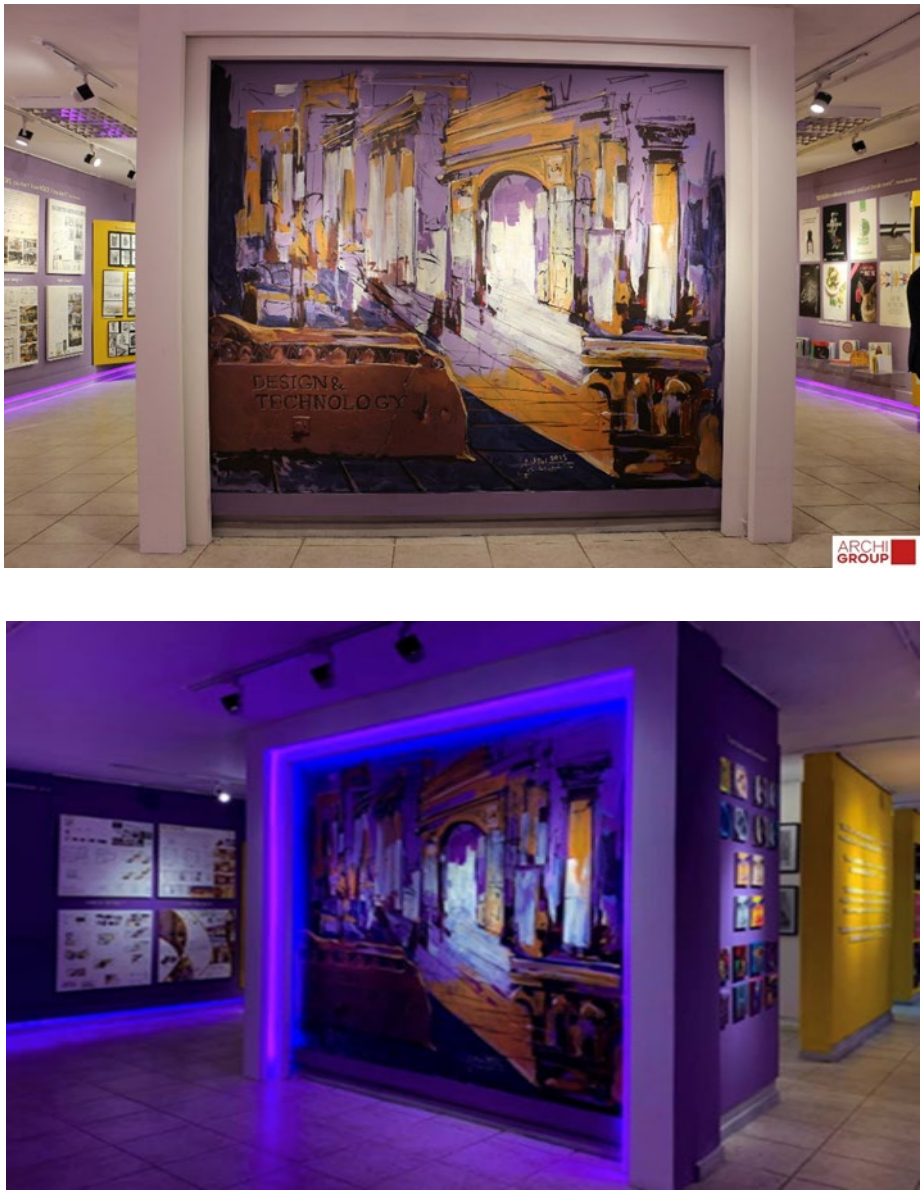


Figure 5-41: Explains the landmark mapping element

5.5 Summary

This contributions to the annual exhibition talk about exhibition design from a traditional perspective to a high-tech, futuristic one.

The visitors' wishes, hopes, perceptions, and awareness are viewed from the outset as making significant contributions to the exhibition's design. From a second angle, different visitor relationships and social interactions are what the design activities are focused on.

In fact, a virtual and actual design exhibition is more abstract and gives the visitor more space for fantasy.

Designing and building interactive exhibitions allows the team work to ultimately choose whatever phenomenon, idea, models, and projects to display. Enough graphics (signage, quotes, etc.) may also be provided for those who are interested in extra details.

The truth is that the expenses of creating interactive exhibitions is high; our proposal would definitely increase that cost, but it would allow us to demonstrate to audiences the long-term advantages of each display and to highlight the faculty and university reputation for better.

As a Result, we can:

- Develop interpretation, learning and the development of audiences including our students.
- Create audiences — including families, teenagers, school groups and casual visitors — by presenting visitors with all levels of knowledge about art with a fun and engaging atmosphere.
- Highlight featured artworks for all departments.
- Bringing those artworks to the greater community.
- The annual exhibition is intentionally more abstract and gives visitors and students more freedom to imagine.
- Expect new aesthetics to be developed.
- Looking for a soothing atmosphere.
- A communication point for all different age groups and gender identities.
- Hoping to get extreme benefits for our students by getting job opportunities for the majority of them after graduation.
- Targeting the local and international markets by introducing student's graduation projects on websites or any other access, for example as we did for our students: https://online.fliphtml5.com/pujoz/ktsc/#p=1

CHAPTER 6: Overview

I dedicate this chapter to voice some finding as a protocol to create students annual exhibitions, most of them take their root from my practice but has a deep connection to the theoretical part of my study, yet in some ways they belong to each chapter in this thesis, due to its importance in the realm of Curation and interior design. This is not a conclusion chapter, it is kept short and comprehensive, and it can be viewed as a link between the rest of the thesis and conclusion.

6. PROTOCOL: Creating Annual Exhibition for Higher Education:

One of the main objectives of education is to enable students to think effectively using the knowledge they have acquired throughout their semesters in design classrooms. This objective is made tangible by involving students in the planning of annual exhibitions. In design classrooms, the focus on the creative and analytical processes sends a variety of messages that can be seen in the students' participation.

Thinking and knowledge go hand in hand. Higher degrees of thinking can be supported by a well-organized knowledge base than by poorly organized knowledge. While learning, whenever students attempt to make sense of something, they use thinking processes.

In design classes, thinking can occur while students attend lectures, study texts, complete laboratories, explore databases or the internet, engage in discussions, work on practical projects, organize and present public exhibitions of their work, and so on.

Incorporating these abilities into regular instructional design is an efficient strategy to aid students in developing the requisite thinking and meaning-making abilities. These abilities help people build a comprehension of key ideas by employing facts, examples, observations, and personal experiences in order to broaden and deepen their knowledge. McTighe, (2020, p. 12-13). (2020, p. 12-13).

It can be difficult for teachers to integrate assessment activities into days full of many other duties since using interactive procedures to evaluate students' thinking might take a lot of time. A one realistic recommendation is to give students a substantial amount of control over the preparation for annual exhibitions.

An annual exhibition is a great method to highlight students' accomplishments over the course of several semesters, draw attention to their displays, engage visitors, illuminate the educational process, and provide examples of other colleges.

They can also be employed diplomatically to create ties across international borders. For instance, through a partnership between different prestigious universities. Our Jordanian students have the opportunity to view a distinctive experience in viewing the essential elements, concepts, and vibrant atmosphere of various annual exhibitions in different universities. From this experience, we may list the following as the key success factors:

6.1 Reviewing Tested Theory as Indicators of Success:

There are ten tips that will help to create a successful annual exhibition, regardless of size, budget, or visitor numbers as follows:

- Good planning
- Adequate budget
- Documentation
- Project team
- Object
- Space
- Good learning program
- Time schedule
- Communication
- Checklist

Good planning:

The annual exhibition's success depends on the first phase. If you don't have a distinct idea of what the exhibition is about and aren't passionate about the theme, it's possible that this will negatively affect the experience of your visitors. Spend as much time as necessary conducting comprehensive research and obtaining appropriate projects. Annual exhibitions are quick and short-term; you will only have one chance to use this format during the academic year.

Work on putting the exhibition together starts during the planning phase. The exhibition has only existed in theory up until this point, but now the countdown to the opening day has begun.

The options for design, presentation, and construction may now be evaluated to determine which option best serves the primary objectives of the annual exhibition and which materials and construction techniques will provide the most value for the money. Regardless of the exhibition size, needs to be monitored during the exhibition run to make sure any problems are dealt with.

A good planning process begins with the drawing of ground plans showing the location of exhibition structures. The ground plan defines the space's function and establishes thematic sequences. Frey, (2006). See figure 5-22.

Adequate budget:

When planning an annual exhibition, money is not the most important factor, but it is necessary to make the idea a reality. It's possible to start off by allocating a specified amount. Cost estimates are necessary as soon as possible. As the plan develops, a budget might be created. You'll need to be able to gather enough money to do the topic properly and to ensure that the exhibition lives up to expectations.

It is important to have a budget in place by the conclusion of the planning stage since it is important to keep in mind that any plan adjustments will cost more money. The role of budget holder should be assigned to one person. Either the project team leader or a member of the finance team could be this. To ensure that all spending is visible, the budget keeper should produce frequent updates.

Calculating a budget requires consider the anticipated cost of the display against the amount of money you have to spend. It may be simpler if you are a part of a huge institution that has a set annual budget for exhibitions. However, it is crucial to constantly spend resources wisely, especially when using public funds.

Your lack of funds will increase as a result of your sponsorship and gift modifications. The team in charge of the annual exhibition must oversee the entire process, keep an eye on the budget, follow the schedule, and guarantee that the financial resources are used efficiently. And if there is a chance to get financial support from other sponsors if needed?

Documentation:

Every yearly display starts with a thought. Once you've chosen a theme and are confident that it will result in a worthwhile and distinctive show, you must expand on it by including the relevant technical data and documentation. To make sure your idea and theme address an important topic that hasn't been covered previously, they should be done as a study process that can take a few weeks to month.

If your yearly exhibition has been held numerous times, do you need to be clear about your objectives and take into account what makes it so successful? And what makes your topic and display special?

Project team:

The top priority is to put together a project team. The team needs to be aware of the objectives, the timeline, and the budget and ensure that all three remain balanced during the duration of the exhibition. The size of the crew obviously relies on the scope and difficulty of the project. In a small show, one individual may assume a variety of positions and duties. For exchanging tasks and information and for fostering a sense of collaborative responsibility, regular team meetings are crucial.

As Blast Theory suggests, it is important to understand that collaborative groups offer opportunities that are bigger and deeper than anyone could achieve alone. To create a truly innovative and multifaceted approach to problem solving, collaboration requires the intersection of ideas from different viewpoints. Moreover, Blast Theory could be used to enhance future recreations of its work as well as provide enriched insight into organizing collaborative creation processes for other groups. Dekker and Miles, (2011).

Towards the achievement of common goals, collaborative efforts require a shared commitment by each individual to keep learning and expanding their thinking. Cress and Kamien, (2013).

Annual exhibition planning is a collaborative effort that calls for expert teamwork communication. Whoever has the competence you need to make the project reality; you must ask to be a curator. You can approach groups of pupils as well as specific students. Additionally, you need to consult as many specialists as you can; at this early stage, they might have useful advice. Selecting a leader may free up the curator to concentrate on the comprehensive material. Other individuals in control who are aware of what is occurring and how it is occurring are essential.

Some of the important responsibilities you may have had were:

- Curator: conceptualizes and develops ideas.
- Project leader: manages budget, schedule, and information by gathering, updating, and communicating all information.
- Exhibition organizer: organizes documentation.
- Technician: offers technical advice on design issues.
- Facilities manager: buildings, services, health, and safety are all under his responsibility.
- Security manager: ensures the security of exhibition spaces and objects.
- PR. (Public Relations): the marketing of the event.

Objects:

What are the objects that you have in the collection and what makes it a good reason why you need to display these objects? And what structure you will use to exhibit the selected objects and demonstrate your concept or theme most clearly?

In order to ensure that the shape and scale of the chosen objects will complement the exhibition's topic, discussions with a professional team will be helpful at this stage. Knowing an object's characteristics allows you to choose the best place for it in the exhibition.

Designers must have a comprehensive understanding of the specific pieces as well as a deep understanding of the kinds of materials that will complement them and significantly enhance the exhibit. As the subject is developed and new items become available, the type and quantity of the objects will progressively become apparent.

An exhibition exposes and interprets the objects, it is not merely a collection of them. The selection of objects should only be made if they directly reflect the concept of the exhibition. Don't just include an object because of its appeal or availability. Identify the value that each object brings to the exhibition. What value will it offer to the overall story and display, and is it necessary?

The number of objects you need to make it important to the exhibition should be taken into consideration. In many exhibitions, there are too many objects on display, which can cause the display to look clustered. Pick objects that are relevant to the exhibition and easy to see. Always remember “Less is more”.

An object should be chosen based on the following questions:

- What are the measurements of height, depth, and width?
- Has it been framed or stands on its own?
- What is the material of this object?
- Is it easy to move it in and out of the exhibition hall?

Space:

A well-planned interior space processing different space aspect, such as space transformation which deal with forms, balance, size, proportion, and retheme, is vitally essential to create an exhibition space with engaging and beautiful space experiences. Visitors will benefit most from the circulation pattern that matches the exhibition's requirements and messages, the lighting scheme that can bother or assets visitors' visual interests, and the display methods.

A well-designed exhibition space, which incorporates display and presentation tactics, direction and circulation, lighting, ergonomics, as well as other visual components, such as color, form, and so on, can achieve the majority of the essential successes of an exhibition. It is critical that materials, objects, and visitors can easily enter the exhibition space.

When assessing the type and size of an exhibition, space is priority number one, which results in a design of the exhibition space showing the locations of all power points, such as:

- **Entrance and exits** ensure that the entrances and exits to and from the exhibition space are properly marked. Fire exits must be visibly marked and easily seen throughout the display. Make sure there is enough illumination to keep visitors safe. Mark the direction of the horizontal and vertical circulation systems with signs. From the entrance, stairs and elevators should be clearly visible and easy to reach.
- **Windows:** mark the windows in the display hall and ensure that they don't create glare or other problems that call for treatments like covering or shading. Verify whether the windows provide ultraviolet (UV) protection or not.
- **Lighting:** Keeping good vision is vital for improving visitors' perception, and lighting plays a big role in that. Image processing is a system used by humans to process visual information. Eyes and brains need to work together to comprehend visual information.

  A good amount of light should be available for the exhibition area as it is essential that the space has a wide variety of types and intensities of light.

  Ensure that the light can be adjusted to a level that is suitable for the situation. The level of visibility should be increased through design.

There is no doubt that lighting plays a significant role in creating a relaxing or dramatic atmosphere. Through lighting, visitors will be able to better understand what is happening in the exhibition halls. The appearance of the objects exhibited should be enhanced in a manner that does not detract from their vividness as much as possible by proper lighting conditions that enable them to be appreciated even under dim light conditions.

- **Walls:** A set of wall components and a number of aim locations, each with a designated zone, define the environment. Typically, the wall components are models with the potential to change the desired flow of people in the area.

  Do not assume that hanging things on walls will be simple. Not all surfaces are appropriate, so you must determine the material of the walls, their thickness, the maximum weight they can support, and whether you are allowed to drill into them.

- **Color:** The primary colors used in exhibition display spaces are those used for exhibits, publicity, lighting, and spatial interfaces. The position of the spatial theme, the choice of style, and the ambiance are all influenced by color, which is a direct visual element in display space. Color can provide more emotive artistry to the exhibit area. Visually, color gives the impression of space.

- **Technology:** The effectiveness of information transmission might be influenced by the technical level directly or indirectly. Exhibitions serve as the presentation platform for new media and technology, satisfying visitors' interest and thirst for information as a result of scientific advancement and the advent of numerous new techniques and materials. Multimedia technology expression increases the annual exhibition capacity and transforms a single, static display into several, dynamic displays. Better communication between people, computers, and things is made possible through design.

  To further integrate with the moral education exhibition space, appropriate new media technologies such as large screen displays, multi-touch screens, virtual reality, augmented reality, and 3D projection technology should be employed.

  The way modern media technology and art interact demonstrates how technology and aesthetics are integrated, as well as the sophistication of the new exhibition space design.

- **Wayfinding:** It was first used to characterize a person's perception of space and all mental operations related to movement in the 1970s. Passini, (1996). The space's layout and ability to control or facilitate mobility are key factors in wayfinding. It can be related to space

because it refers to the area that visitors enter when navigating the exhibition halls. McMurtrie, (2013).

Confusion might happen in an exhibition area if it becomes overly complicated. When this occurs, visitors frequently look for directional aids to help them navigate the area, such as maps or signage.

Visitors visiting exhibition halls frequently find them to be new and strange environments. Visitors may make erroneous assumptions about the size, height, color, or angle in these strange locations. These environmental cues have the power to immediately and subconsciously affect visitors' behaviors.

The impact of visitors' physical and mental well-being on the experience of their visit should not be understated. Toilets and restrooms are apparent necessities, but they can only be identified with the help of a proper signage system. Maps, diagrammatic exhibition plans, and orientation signage offer visitors a sense of the scope of an exhibition, aid with wayfinding, and allow visitors to decide how long they should spend in each area. Visitors won't be prepared to advance to a higher degree of engagement that incorporates learning until they feel secure and at ease in the place.

In order to effectively manage exhibition visitors, orientation signage is a crucial design element. It involves having a comprehensive grasp of how people move throughout space.

Signage should be straightforward, brief, and constant. Most significantly, it is necessary for directions and signage to be immediately clear.

Good learning program:

The majority of annual exhibitions include an educational component. Adding more chances for participation, learning, and enjoyment can improve any size or type of display. When evaluating the exhibition's viability, take into account the potential activities and events. Schools, youths, professional groups, local interest, families, and university students from other fields are a few groups that could receive especially custom-made activities.

Numerous visitors are interested in learning more about the exhibition and its components. Meeting and speaking with the curator, the instructors, and the students always makes visitors happy. Many annual shows now include a significant amount of digital content. As a crucial component of the display, incorporate digital content. In addition, you might provide activities created to correspond with the college curriculum as information.

The chosen objects were examined for potential educational outcomes because teachers, curators of annual exhibitions, and administrators value such outcomes highly. All of the chosen objects did, in fact, report a positive learning outcome, but they did not specify what these outcomes were or how they were tested, and these will be part of my contributions in chapter 7. However, results pertaining to the learnability of the multimedia material of the annual exhibition and the specific skill sets attained by exhibition audiences as students and visitors showed the educational benefits.

Findings in the chosen objects had significance when connected to particular applications. However, in a larger sense, student motivation for involvement and their readiness to repeat the activity the following year are related to educational success. The estimated beneficial impact and expected outcomes on exhibition visitors may vary depending on the specific study.

Positive changes have been made to education, making it more informational and contemporary, continuously raising the standard of young people as a whole.

Time schedule:

The opening date will be decided upon based on the schedule of your institution. Verify that no other events are scheduled to begin at your institution or a neighboring institution, and confirm that no public holidays, cultural celebrations, or national holidays will conflict with the opening date. Make the project team's access to the schedule simply by posting it online or making it visible for everybody, you can also make a countdown until reaching the opening day.

Communication:

It's time to start communicating right now. Discussions up to this point had only engaged team workers. Since it has been decided to move forward, it is necessary to communicate with everyone who will be present at the exhibition's opening. By posting information online, the public can engage in the exhibition in a variety of ways and visitors from around the world can access it actually (in person) or even virtually (if available). The public relations (PR) team of the university are also a very important key factor in the success of the exhibition, especially at this stage.

The exhibition must prepare both exhibition material and a communication style that meets the needs of modern visitors to achieve its educational goal.

Checklist:

The use of checklists in documentation preparation ensures that nothing important is missed. Additionally, checklists are also used when the design process is being conducted on a sophisticated level in order to ensure quality.

The choice to move forward and disclose the project's undertaking marks the end of this phase. A general timetable from the start of the plan down to the agreed day " the opening day" should also be included. One vital task you must do as a checklist at the conclusion of each of these phases is:

- The exhibition's details.
- The importance of it is well explained.
- The following is a draft list of objects.
- The proposed exhibition spaces.
- The budget outline.
- The suggested program.
- Timelines.

The following table 6-1 illustrates and summaries the indicators of success in relation to the actions done and taken place at the students' annual exhibition. I decided to look at these indicators as a pinch mark that leads to a better understanding of the duties of the curator and his team. Moreover, these indicators will play the biggest role in the post-exhibition evaluation stage. See table 6-1.

Indicators	Action to do
Planning	• Clear vision. • Research and data collection. • Methods used. • Execution of ideas and concepts.
Budget	• A specific sum. • Related to design process. • Meets standard requirements. • Increased upon any changes in design process.
Documentation	• Necessary documentation as research process. • Technical data. • Done before few weeks or month. • Clear purpose of new annual exhibition.
Team	• Establishing a team and choosing a leader. • Aware of aims, schedule, and cost. • Regular team meeting. • Involving students to the team.
Objects	• Understanding the properties of the selected objects. • Knowing the types and number of materials used. • Contribution of objects to the theme. • Less is more.
Space	• Success occurs through a well-designed exhibition space. • Processing various space elements. • Leading to a plan showing the position of all power points.
Learning Program	• Enhancing opportunities for learning, enjoyment, and participation. • Targeting various groups. • Meeting college curriculum and educational outcomes. • New educational mode.
Time Schedule	• Fixed and announced opening dates. • Agreed form college and institution. • Displayed and posted factual and online.
Communication	• Widen the circle of communication. • Sharing information on the web. • Prepare the style of communication corresponding to visitors need.
Checklist	• Ensure of all important information are none overlooked. • Ensure a complex review is undertaken. • Ends with decision to go ahead. • A rough timeline from setting plan till opining event.

Table 6-1: Summaries of the indicators of success in relation to the actions done at annual Exhibition

6.2 Designers Role:

Designers are extremely like novelists and scriptwriters when it comes to building their own universes. They create things, places, communication channels, concepts for exhibitions, and ideas. Their worlds are made up of actual and virtual objects, indoor and outdoor areas, and social interactions. A dramatic design has an impact on recipients, readers, and observers and allows them to create the possibilities of their own world. This Leeds to something called: "the design drama." Consequently, can assist us in creating new possibilities for our own, actual world.

I believe exhibition design is fundamental, unique, and challenging field for designers, and one that is a never-ending field to study. As Irina Koryagina states, the stakes are getting greater and higher every year as the visitor gets more knowledgeable and technology advances, putting a lot of pressure on designers to engage this visitor. Every little thing matters and enhances the experience in the exhibition space. Shaoqiang, (2016).

A curator is a person who is responsible for something, and the word originates from the Latin "cura", meaning "care". After the emergence of exhibitions in the mid-19th century, group art exhibitions flourished in a formal manner, and the curator became an influencer of knowledge who was able to bring together artists through master narratives in order to curate group art exhibitions. It was the curator's reputation as gatekeeper and expert that formed the basis of their responsibilities as gatekeeper and expert in the field of art. French, (2020, p.10-11).

A look at what curatorial practices should look like in the future? Would a curatorial utopia take the form of an ideal, aspired, and near-perfect model of curatorial behavior? If so, then what would it look like? (Wikipedia defines a utopia as a community or society with highly desirable qualities and almost perfect conditions for its citizens).

A fresh perspective is added to the subject of curatorial studies by Curatorial Challenges, which promotes creative multidisciplinary exchange. Academics, scholars, and postgraduate students interested in the study of curatorial practice, the creation of exhibitions, the communication of exhibitions, and art history should find it to be of considerable interest. Curatorial Challenges addresses the difficulties that curators face today and the behaviors, ways of thinking, and categories of knowledge creation that curating exhibitions could question. Hansen, Henningsen, and Gregersen, (2019).

Curational practice, according to Reesa Greenberg in her book “Thinking About Exhibitions 2.0.”, can be described as ethical-driven curating that continues the tradition of institutional criticism. Curatorial approach such as this would facilitate the development of art school as a critical reflexive institution as well as helping both students and staff in understanding the “Bermuda Triangle” of the final exhibition in terms of the individual student’s practice, the need for assessment, and opportunities for social engagement. Greenberg, (2016).

The importance of exhibitions grows along with curatorial approaches. This dissertation presents novel research that examines how curatorial practices inform both art and educational exhibitions in contemporary culture, arguing that new research is required to comprehend these developments.

This presentation is intended to help designers think through how to share a thematic form, distribute control over the design process effectively, as well as understand how complexity relates to hierarchy depth in their work, how to control and design space taking care about time as an important dimension of design, in order to be more productive designers in their work. Lifschutz, (2017, p.22).

Designing for interactions opens eyes to a new universe of opportunities for designers, taking them away from form and function and into a more analytical and important process where they can have a more intelligent social impact.

In addition to spending a lot of time attempting to predict how visitors would respond to programmed protocols, designers also need to test their concepts for interactions with visitors in real-world settings throughout the development process. Penin, (2018, p. 25-26).

Designers can create conditions for unusual, significant, and ultimately unforgettable visitor experiences by utilizing the sensory and symbolic elements of the shape it shows in their work.

Nearly everything moved online when Covid-19 put everyone on lockdown. Here we have the explosion of online and virtual exhibitions. Even though what looks to be nothing more than a click-through website with no headset in sight, some have gone as far as to term them virtual reality exhibitions. It's not exactly a novel idea to hold an exhibition online. For instance, the online-only Universal Museum of Art appear in 2017.

According to Yang Meng for the China Global Television Network, "With the aid of advanced digital technology, cultural relic photographs can be clearly exhibited from numerous angles, allowing the viewer to perceive some subtleties that cannot be seen at the site." Other

advantages include accessibility, which includes 24/7 opening hours and no travel restrictions, as well as the chance to bypass lines and busy areas. These, in Meng's opinion, "allow people to appreciate the cultural relics with more attention." Hansen, Henningsen, and Gregersen, (2019).

This will allow them to move around in a virtual environment and modify the pieces' features like color, texture, and substance. This is the ideal time for individuals to encounter such a notion because social distance is something that everyone on the globe does. If exhibitions do move toward becoming more virtual, we would first consider the target audience's demands and determine how best to produce the shared experience.

The curators improved the online options by creating a new virtual interior, creating a seamless connection between the tangible objects in the exhibition and virtual reality.

The exhibition's website description reads, "Things that are inconceivable in physical space become possible in the digital environment." Many of the works produced so far in this vast, untapped realm of digital possibilities imitate aspects of the real world.

I think a new design language will likely emerge as we become more accustomed to the digital setting and as these technologies and media become commonplace. Things that are unfeasible in real life become feasible in the digital world. The question then will be, how does curatorial practice transmit or transform objects and ideas?

Curators are not the only employees working with collections and exhibitions, after all. Additionally, only a small percentage of visitors are likely aware of the numerous players who contribute to the various stages of the exhibition process, from researchers to carpenters, designers to security guards to insurance agents.

To be effective with both "elite" and "non-elite" visitors, curation needs to develop its own ideas and approaches in a larger range of disciplinary contexts. Curator as “facilitator”, the refashioning of new relationships between source communities and exhibitions have been enhanced by curators acting as facilitators, providing access, collaboration, and co-production. Schorch, and McCarthy, (2019, p. 162).

6.2.1 Designer for the annual exhibition has a great role in making this event reality and success.

Designers play a crucial role in making the annual exhibition successful by:

- Using the audience's experience as a starting point, it pays attention to their sensory and emotional experiences. This can greatly improve audience engagement. It also places focus on the mind's resonance while paying attention to the audience's sensory experiences. Visitors who engage in the interaction gain a deeper knowledge of the material on display and develop a deeper comprehension. They also pay attention to how new technologies are being applied, which increases the enjoyment of the experience and demonstrates the charisma of technology. All of these offer some fresh viewpoints on the layout of annual exhibition spaces.
- Depending on the extent to which he or she comprehends human sensitivity to beauty and expressive perception, reaching the aesthetics of space. As a result, when we look into how people define beauty and take vision into account, the aesthetic status of the area will work as intended. Knowing that the definition of beauty varies with time, place, intention, and context.
- Understanding the aim of the annual exhibition as a public space situated in a university building and designed for educational purposes.
- Concentrating on the visitors as well as the collections. In an exhibition, what visitors do, and feel is just as important as what they learn. The messages of the exhibition should be communicated not just through the material and collection, but also through experiences that engage the visual, tactile, and aural senses.
- Designing environments that convey messages in a clear and understandable manner is an essential part of the exhibition designer's role. Locker, (2011).
  As outlined in the ten principles of the United Nations Global Compact (UNGC), mainly principle 8 and 9, exhibition designers should respect these principles and utilize them as a guideline when designing for the public in such environments. “Take initiatives to promote greater environmental responsibility and encourage the diffusion of environmentally friendly technologies.” UNGC., (1992).
- Paying more attention to the background of rapid development, creative design, and communication means. Due to this, it is important that the level of exhibition be designed properly, and your performance should produce a sense of beauty.

- Understanding the behavioral mentalities to deal with the interaction between people and objects in exhibition spaces. A valuable order of moral educational display space may be maintained by limiting their attitude through some specific architectural features and exhibiting methods.
- Paying close attention to the use of different information-based means and introducing new ideas in design concept, design language, design method, pattern of expression, and appeal to encourage the growth and reform of design works.
- Evaluating the annual exhibition's overall outcomes. It is possible to suggest that all learning objectives should be taken into account in design education when all courses across the design curriculum are viewed as a whole.
- Incorporating both pleasurable and functional features in the environment by paying more attention to the physical, emotional, and intellectual needs of the visitors. Creating a new experience for every visitor at the exhibition. Generating creative, imaginative ideas by finding inspirational triggers. Locker, (2011).
- Being in charge of the overall quality and safety of show delivery. The principal curator's standards will determine the exhibition's overall organization and quality. At all times, the public's safety is given top priority.
- Developing a design language that both visitors and students can understand to improve the communication of design information in a beneficial way.
- Considering accessibility at every stage of the design process should enhance a visit for all audiences.
- Making full use of varied elements, color, and lighting to create an intangible, deep mood in conjunction with the different exhibition areas' storytelling. Yu, (2015).
- Experimenting with traditional thinking in order to produce new, "outside-the-box" ideas. View Maria Ines Gul's yearly "Student Work-in-Progress" exhibition at the Royal College of Art in London (2015). http://www.summerstudio.co.uk/rca-wip/
- Creating the necessary horizontal and vertical spaces while utilizing typography that may be spread "liquidly" within the constrained shapes. See Hector Sos' "Vogadors Architectural Rowers" Catalan Pavillion at the Venice Architecture Biennial (2012). www.hectorsos.net
- Recognizing spaces by explaining the many characters of each area using various types of numbers. See "Teatros Luchana" Graphic Campaign in Madrid, Spain, created by Toormix, Matt Lazenby, Vaca Estudio (2014-2015). www.toormix.com

- Energizing the students as well as inspiring and involving potential future university students who might be interested in attending. Visit the "We Are" Student Exhibition by Victoria Redmond, Jasper Lee, Samson Cook, and others at Leeds College of Art (2015).

  https://www.behance.net/gallery/24322445/WE-ARE

- Using a navigation system with color-coded routes to identify the exhibition and offer many ways to enjoy it. View the California College of Arts "Come Together" Design Exhibition. Amy Yu Gray, Zena Adhami, Aarati Gopal, Kristin Koch, Grace Li, and Patrick Megla are members of the 2012 CCA MFA Design Class. https://design.cca.edu/#/
- Showcasing the cutting-edge technology that is transforming built-environment visualization. Visit the Bartlett School of Architecture's "Drawn to the Future Exhibition" at the London Building Center (2015).www.them.co.uk
- Using a number of graphic components to represent an idea in a way that suggests convergence. Visit the "INTER" Senior Exhibition by Down Baxter, Camille Domangue, Andres Garcia, Sasha Ichoonsigy, Janthan Lopez, Corbin Spring, Dan Vo, and other graphic designers from the University of Houston in Houston, Texas, the United States (2015). https://design.uh.edu/shows/2015/
- Determining the exhibition by referencing the employment of a multi-symbolic system in each of the exhibitor's individual issues. View the "Pratt Grad Com D MFA Exhibition" by M.F.A. recipients from the Department of Fine Arts at Pratt Institute School of Art and Design. Chantal Fischzang, Nicholas Misani, Frances Pharr, and Mira Pojanasakul in New York (2012).

  www.cargocollective.com/chantalfischzang

- Using visual representation to show how different themes work together. The annual exhibition known as "F-H-YU-JEON" is organized by the design department of Hongik University by: Seungtae Kim (2012). www.seungtaekim.com
- Using voices to convey "Onomatopoeia" and give inanimate “lifeless words” a sense of life, just as if you were bringing exhibits to life. See the “Onomatopoeia-Endowed with Soul” as a graduation exhibition project at the department of Computer Aided Media Design. Chang Jung Christian University, China by: Hsin-Wei Su and Chia-Yun Su (2013). www.behance.net/chuchunta

- Examining new immersive technologies and inventive experiments that involve sight, hearing, touch, and smell in order to extend narrative away from conventional screens. These interactive movies, participatory installations, virtual reality experiences, and futuristic interfaces provide a glimpse into a future when storytelling includes more of our bodies than just our eyes and ears. View Michelle Ando Wainer's "Sensory Stories Exhibition," which was produced by the Zurich University of Art in Switzerland and displayed at the Museum of the Moving Image by Swissnex, Boston (2015). www.michelle-ando.com
- Assisting students to display their works despite the challenges and constraints around them. Designers should think outside the box, enabling everyone to overcome obstacles even in difficult circumstances. View "Parcours" the student exhibition which was a masterpiece in a virtual. The concept of this exhibition was defined by the use of advertising materials such as posters, a movie trailer, invitations, and an information system to guide participants.
- A group of seven students at Munster University designed and implemented the exhibition catalogue and website, which incorporated the lighting concept and the color scheme deep blue and bright red to represent the passion, individuality, and depth of each student. (2016). https://www.behance.net/gallery/33320791/Parcours-exhibition-design

CHAPTER 7: Overview

The conclusion was discussed in depth in the preceding chapters of this thesis by the summary at the end of each chapter. This part serves to highlight the study's substantial knowledge contributions as a list of contributions made by the researcher, discussing my discoveries during the investigation I highlight the major relevant steps that took place at the various stages of the study, followed by the researcher recommendations for further research.

7.Conclusion

It was an academic interest in designing engaging interactive environments inside the students' annual exhibitions that prompted my last three years of research and sparked this dissertation. As a designer, I am mostly concerned with issues related to the design process, which is the essence of most of my work.

As a researcher, I am interested in understanding and developing ways in which design is accomplished, as well as how design inquiries can be conducted in particular. As a curator and designer of annual exhibitions, I am responsible for designing situations and technologies that invite people to visit students' annual exhibitions using their knowledge, efforts, imaginations, and capacities.

In my research, I am looking at how to design a specific space that fosters engagement and aesthetic values through the use of successful solutions, situations, and technologies. It has been my primary focus to design students' annual exhibitions in an interactive environment within which physical and digital materials are blended.

I have been involved with the issue of participatory design inquiries through my work where users as well as stakeholders are invited to take part in the design process by providing feedback and suggestions. In my experience, this is an exciting and inspiring area of research and one that I believe is a promising direction to follow in addressing my research interests in a promising way. As a result, I believe the participatory design approach is highly suitable to design annual exhibitions for students.

As a teacher of interior design subjects, my contribution has been gained through reflection, discussion with my colleagues and students, and reading literature. However, my research has been driven by experimental work where I have engaged in several preparing and designing students’ annual exhibitions through my 26 years of working at the university of Petra in Jordan.

7.1 Contributions

Based on my above interests, my contributions have guided my academic inquiries and have led me to narrow my interests. In particular, I have pursued my comprehensive interest through a research program that provided the experimental basis for designing impressive annual exhibition spaces. Furthermore, it provided me with a valuable context for exploring my research question. Consequently, the concept of participatory engagement emphasizes the importance of visitors investing their time, talents, and knowledge into interactive environments as active individuals and groups.

This contribution can be considered as an outcome of the grounded theory process that was followed in order to synthesize the theoretical contributions towards a practical outcome in order to provide practical recommendations. The experience of annual exhibitions has given me a practical and conceptual framework in which to qualify and contextualize my arguments.

The following are the two components of my contribution:

My contribution begins with theoretical work on how pedagogy, curriculum, and assessment in higher education are planned and delivered in order to engage students in meaningful, relevant, and accessible learning outcomes.

Second, it explores immersive, fascinating, and dynamic approaches to designing an informal learning environment based on student interaction, enthusiasm, and practices.

After a brief summary of the thesis, I state the following contributions:

- Firstly, this thesis' theoretical and practical contributions should be both incorporated into **interior design curricula and pedagogy of the higher education** institutions.
- Secondly, the study **translates the annual exhibition concepts** into a meaningful, and ongoing learning process rather than being a one-time- annual celebration. As any subject/ course the student takes during his/ her educational journey, annual exhibition treated with the same manner where there must be a **learning outcome** including knowledge and understanding, intellectual skills, general and transferable skills, and professional and practical skills. See table 7-1, illustrates the Targeted educational outputs of the interior design department Program at the faculty of Architecture and Design – University of Petra 2023/2022, according to this table the targeted outcomes for the annual exhibition shall conduct the following:

For the Knowledge and understanding:

K (2): Familiarizes himself with the systems for the design of interior spaces and their applications.

For The Intellectual Skills:

I (1): Analyzes the dimensions and requirements of various projects to reach the best design solutions.

I (2): Prepares an integrated business plan that combines the functional, aesthetic and quality bases.

I (3): Translates mental ideas into physical and practical visual designs that can be applied.

For the General and Transferable Skills:

T (1): Communicates with all parties of the project in a linguistic and engineering style and within the team spirit.

For the Professional and Practical Skills:

P (1): Provides functional solutions in the two and three dimensions manually and using specialized computer programs.

P (2): Considers the design standards and means of safety, health, and quality in interior design.

P (3): Prepares and verifies plans, Executive drawings, tables of quantities and specifications related to interior design materials and works.

P (4): Mastered the appropriate computer programs that help to display, demonstrate, and implement design projects.

- Thirdly, that the theoretical and practical contribution of this thesis be implemented in interior design practice to **empower the new generation** with meaningful, fascinating, and immersive experiences.
- Fourthly, the study identified the main core of redesigning students' annual exhibition by **implementing the new approaches of modern technologies** used these days, putting in mind the internationalization word as a guideline in the realm of exhibitions.

- Fifthly, the study **speculated on the main role of interior design elements** as: design process, physical entities in an interior design, environment factors, typology analysis of exhibition, spatial entities, and aesthetical values.
- Sixthly, this thesis succeeded in **highlighting the faculty and the university reputation** as an academic, and marketing image between other universities, as well as the students' added values helping them to gather a **better career opportunity** after graduation.
- Seventhly, the study contributes to **enhance the visual consistency** using form, color, and quality of light. Furthermore, the study **achieves aesthetic** harmony, unity, and purity by combining a specific feeling and language with a specific intervention.
- Eighthly, this thesis tries to **read and understand the prototypes of visitors** and cope with their interests, behaviors, perceptions, engagements, and experiences to get a better understanding of their expectations, by asking them to respond to some questionnaires which were done by the researcher.
- Ninthly, this study sheds light on the **positive aspects of the role of the general coordinator** of the student annual exhibition in finding solutions, alternatives, and the appropriate budget for implementation during the stages of work and design process of the student annual exhibition.
- Tenthly, this thesis tries hardly **to find the common characteristics interion design** of different annual exhibitions in various countries, depending on the most noticeable and memorable issues, and getting benefits of similarities and differences between these annual exhibitions.

7.2 Recommendations for further research

The study makes the following recommendations:

- That the methods that were used and identified in preparing the annual exhibition should be with innovative concepts, modern techniques, and well organized.
- Preparing a budget plan through seeking different types of funds that must be obtained before time of opening.
- The responsibilities and contributions must be shared between the team members who are in charge of organizing the exhibition, in order to ensure better support and a large contribution.
- To reach an ultimate interactive exhibition, there must be a sort of prize, rewards acknowledgements for example from the institution itself, or governments, or any interested local communities.
- The methods of facilitating the distribution of design and student projects should be truly meaningful and closely related to the disciplines being taught should be examined and developed in an appropriate way.
- There should be a periodic review and evaluation after the completion of the annual exhibition to find out the positive aspects to adopt and the negative aspects to avoid in the future.
- Finding an appropriate mechanism for saving and archiving the students' exhibited works to be live models to be consulted when needed, as well as making a brochure containing the idea of the exhibition and exhibits, indicating the necessary information about the students' exhibited works.
- Future research should be conducted to investigate the creation of meaning in specific and innovative interior design types to greater depth keeping in mind the pedagogy aspects while designing students' annual exhibitions.
- Also, the importance of having a cultural role depends on multi variables in various universities and countries.

Targeted educational outputs of the interior design department Program at the faculty of Architecture and Design – University of Petra 2023/2022
(Knowledge and understanding)
K (1): Understands and reads the types of engineering diagrams and drawings. **K (2):** Familiarizes himself with the systems for the design of interior spaces and their applications. **K (3):** Identifies the concepts and methods of scientific research that contribute to design solutions and methods of implementation. **K (4):** Understands the concepts, materials, models, and techniques of interior design.
(Intellectual Skills)
I (1): Analyzes the dimensions and requirements of various projects to reach the best design solutions. **I (2):** Prepares an integrated business plan that combines the functional, aesthetic and quality bases. **I (3):** Translates mental ideas into physical and practical visual designs that can be applied.
(General and Transferable Skills)
T(1): Communicates with all parties of the project in a linguistic and engineering style and within the team spirit. **T (2):** Manages the project effectively and efficiently and supervises the implementation stages. **T (3):** Prepares technical reports and scientific research in a scientific and professional manner. **T (4):** Follows the professional ethics related to the practice of the profession with all parties.
(Professional and Practical Skills)
P(1): Provides functional solutions in the two and three dimensions manually and using specialized computer programs. **P (2):** Considers the design standards and means of safety, health, and quality in interior design. **P (3):** Prepares and verifies plans, Executive drawings, tables of quantities and specifications related to interior design materials and works. **P (4):** Mastered the appropriate computer programs that help to display, demonstrate, and implement design projects.

Tabel 7-1: Illustrate the targeted educational outputs of the interior design department at UOP

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- Hector Sos' "Vogadors Architectural Rowers" Catalan Pavillion at the Venice Architecture Biennial (2012). www.hectorsos.net
- "Teatros Luchana" Graphic Campaign in Madrid, Spain, created by Toormix, Matt Lazenby, Vaca Estudio (2014-2015). www.toormix.com
- The "We Are" Student Exhibition by Victoria Redmond, Jasper Lee, Samson Cook, and others at Leeds College of Art (2015). www.behance.net/vredmond
- The California College of Arts "Come Together" Design Exhibition. Amy Yu Gray, Zena Adhami, Aarati Gopal, Kristin Koch, Grace Li, and Patrick Megla are members of the 2012 CCA MFA Design Class. www.design.cca.edu
- The Bartlett School of Architecture's "Drawn to the Future Exhibition" at the London Building Center (2015). www.them.co.uk

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- The "Pratt Grad Com D MFA Exhibition" by M.F.A. recipients from the Department of Fine Arts at Pratt Institute School of Art and Design. Chantal Fischzang, Nicholas Misani, Frances Pharr, and Mira Pojanasakul in New York (2012). www.cargocollective.com/chantalfischzang
- The annual exhibition known as "F-H-YU-JEON" is organized by the design department of Hongik University by: Seungtae Kim (2012). www.seungtaekim.com
- The “Onomatopoeia-Endowed with Soul” as a graduation exhibition project at the department of Computer Aided Media Design. Chang Jung Christian University, China by: Hsin-Wei Su and Chia-Yun Su (2013). www.behance.net/chuchunta
- Michelle Ando Wainer's "Sensory Stories Exhibition," which was produced by the Zurich University of Art in Switzerland and displayed at the Museum of the Moving Image by Swissnex, Boston (2015). www.michelle-ando.com
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Appendix 1: Questionnaire (A): Students behavioral.

This questionnaire makes use of ranging scales with 4 places; you are asked to answer according to this scale: **1/ Extremely – 2/ Quite Good – 3/ Slightly – 4/ Neither.**

Student Behavioral Questionnaire					
Actions		1/ Extremely	2/ Quite Good	3/ Slightly	4/ Neither
1	For me to attend and participate in annual exhibition on a regular basis is extremely pleasant:				
2	Most of students attend annual exhibition on a regular basis is true:				
3	For me attending annual exhibition on regular basis is valuable:				
4	I will make extra effort to attend and participate in annual exhibition:				
5	For me to attend and participate in annual exhibition is impossible:				
6	I do care what the instructor would say about my participation in annual exhibition:				
7	Attending annual exhibition on a regular basis will help to gain better understanding of the subject matter of the courses:				
8	Attending annual exhibitions on a regular basis will give me an opportunity to interact with the instructor and other students in the faculty:				
9	Attending annual exhibition on a regular basis will help me to develop good study habits, self-confidence:				
10	Attending annual exhibition on a regular basis will help me to gain job opportunity after graduation:				

Questionnaire Results				
Question No.	**Extremely**	**Quite Good**	**Slightly**	**Neither**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Answers Results	**Total ----------**	**Total ----------**	**Total ----------**	**Total ----------**

Appendix 2: Questionnaire (B): Visitors experience.

1. How many times have you already experienced any annual exhibition?

a) First time
b) 2-3 times
c) 4-5 times
d) More than 5 times

2. What inspires you most to visit the annual exhibition?

a) To gather art and design-specific information
b) To explore new themes and concepts
c) Networking opportunities
d) Other reasons (Please specify) ----------

3. How did you know about the annual exhibit?

a) social media
b) Email invitations
c) Word of mouth
d) Other sources (Please specify) ----------

4. Before going to the event, did you do any comprehensive research on who are the annual exhibitors and what are their products?

a) Yes
b) No

5. Which of the following statements most accurately sums up how you experienced the annual exhibition?

a) I visit the annual exhibition to explore students' projects
b) I explore the annual exhibition without any specific plan
c) I only attend seminars and events held during the annual exhibition
d) Other experiences (Please specify) ----------

6. How much time do you usually spend at the annual exhibition?

a) Less than an hour
b) 1-2 hours
c) 2-3 hours
d) More than 3 hours

7. What is the most important reason do you think makes you want to continue investigating the annual exhibition products?

a) Quality of annual exhibition products
b) Quality of techniques used on display
c) Organizational aspects of the exhibition
d) Other factors (Please specify) ----------

8. Annual exhibition environment stimulates your senses of sight, hearing, touch, and so on, allowing you to have a sensory experience.

a) Strongly agree
b) Agree
c) Neutral

d) Disagree

9. How likely are you going to recommend the annual exhibition experience to your friends, family, and colleagues?

a) Highly likely
b) Somewhat likely
c) Neutral
d) Unlikely

10. Do you have any suggestions or feedback to improve the annual exhibition experience for new visitors?

a) Yes (Please specify) ----------
b) No

Question No.	Questionnaire Results				Total percentage
1	a) ----------	b) ----------	c) ----------	d) ----------	%
2	a) ----------	b) ----------	c) ----------	d) ----------	%
3	a) ----------	b) ----------	c) ----------	d) ----------	%
4	a) ----------	b) ----------	c) ----------	d) ----------	%
5	a) ----------	b) ----------	c) ----------	d) ----------	%
6	a) ----------	b) ----------	c) ----------	d) ----------	%
7	a) ----------	b) ----------	c) ----------	d) ----------	%
8	a) ----------	b) ----------	c) ----------	d) ----------	%
9	a) ----------	b) ----------	c) ----------	d) ----------	%
10	a) ----------	b) ----------	c) ----------	d) ----------	%

Appendix 3: Questionnaire (C): Visitors navigating the physical entities in an interior space.

This questionnaire makes use of ranging scales with 4 places; you are asked to answer according to this scale: **1/ Extremely – 2/ Quite Good – 3/ Slightly – 4/ Neither.**

Visitors' navigating the physical entities in an interior space						
 **Entrance**	**Entrance**		**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
	1	My navigation was influenced by the direction and location of the entrance				
	2	Entrance was easily identified				
	3	Entrance was spacious				
	4	Entrance was attractive for first and last impression				
	5	Entrance determinates of the roots of the most visitors and that most visitors turn to the right				
 **Walls**	**Walls**		**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
	1	My navigation was influenced by the directional wall				
	2	My navigation was **NOT** influenced by the directional wall				
	3	I was easily able to navigate around the directional wall(s)				
	4	The directional wall(s) direct me towards either to the left or to the right				
	5	I had a good time deciding which direction to navigate around the direction wall(s) before I start moving				
 **Objects**	**Objects**		**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
	1	The object that displayed at the first in the exhibition hall was the most object to be seen than other objects				
	2	The physical entities of an object like size, color, material, and position attracted visitor more than another object				
	3	Objects were likely appreciated according to its theme, beauty, and authenticity				
	4	Objects that were well noticed located in the center of the exhibition hall				
	5	Objects that were less noticed located **NOT** in the center of the exhibition hall				

		Colors	1/Extremely	2/ Quite Good	3/ Slightly	4/ Neither
 **Colors**	1	The color of the exhibition hall affected the perception of visitors and can evokes feelings, and emotions				
	2	Warm colors added extra value to the exhibition halls more than the cold colors do				
	3	Color can play a master role in the narration way of the exhibition events				
	4	Color added extra value to the exhibited objects and highlighted the main characteristics of them				
	5	Color can affect your ability to stay more time in the exhibition hall				
		Technology	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
 **Technology**	1	The presence of technology in the exhibition has led to making the exhibition a hybrid exhibition that combines modernity in display in addition to the traditional approach in display as well				
	2	Technology added to the exhibition a modern and contemporary language that everyone of all age groups understands and interacts with				
	3	Technology has created a beautiful interactive atmosphere that visitors and students love and will remain in everyone's memory				
	4	The technology display has positively affected the traditional display of the exhibition				
	5	The technology display has negatively affected the traditional display of the exhibition				

Questionnaire Results				
Entrance	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1				
2				
3				
4				
5				
Walls	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1				
2				
3				
4				
5				
Objects	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1				
2				
3				
4				
5				
Colors	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1				
2				
3				
4				
5				
Technology	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1				
2				
3				
4				
5				
Answers Results	**Total** ----------	**Total** ----------	**Total** ----------	**Total** ----------

Appendix 4: Questionnaire (A): Results: Students behavioral.

Student Behavioral Questionnaire					
Actions		**1/ Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1	For me to attend and participate in annual exhibition on a regular basis is extremely pleasant:	Answer:50	Answer:5	Answer:2	Answer:0
2	Most of students attend annual exhibition on a regular basis is true:	Answer:42	Answer:10	Answer:3	Answer:2
3	For me attending annual exhibition on regular basis is valuable:	Answer:52	Answer:5	Answer:0	Answer:0
4	I will make extra effort to attend and participate in annual exhibition:	Answer:40	Answer:10	Answer:5	Answer:2
5	For me to attend and participate in annual exhibition is impossible:	Answer:34	Answer:20	Answer:2	Answer:1
6	I do care what the instructor would say about my participation in annual exhibition:	Answer:42	Answer:6	Answer:7	Answer:2
7	Attending annual exhibition on a regular basis will help to gain better understanding of the subject matter of the courses:	Answer:46	Answer:8	Answer:1	Answer:2
8	Attending annual exhibitions on a regular basis will give me an opportunity to interact with the instructor and other students in the faculty:	Answer:52	Answer:2	Answer:2	Answer:1
9	Attending annual exhibition on a regular basis will help me to develop good study habits, self-confidence:	Answer:51	Answer:4	Answer:1	Answer:1
10	Attending annual exhibition on a regular basis will help me to gain job opportunity after graduation:	Answer:32	Answer:20	Answer:5	Answer:0

A total of 57 optional surveys were completed anonymously. Here are the results from the prescribed questions.

Questionnaire Results				
Question No.	**Extremely**	**Quite Good**	**Slightly**	**Neither**
1	88%	9%	3%	0%
2	74%	18%	5%	3%
3	91%	9%	0%	0%
4	70%	18%	9%	3%
5	60%	35%	3%	2%
6	74%	11%	12%	3%
7	81%	14%	2%	3%
8	91%	3%	3%	2%
9	89%	7%	2%	2%
10	56%	35%	9%	0%
Answers Results	**Total 77%**	**Total 16%**	**Total 5%**	**Total 2%**

Appendix 5: Questionnaire (B): Results: Visitors experience.

A total of 66 optional surveys were completed anonymously. Here are the results from the prescribed questions.

This questionnaire makes use of ranging scales with 4 places; you are asked to answer according to this scale: **1/ Extremely – 2/ Quite Good – 3/ Slightly – 4/ Neither.**

Question No.	Questionnaire Results			
1	**a) 18%** Answers:12	**b) 73%** Answers:48	**c) 6%** Answers:4	**d) 3%** Answers:2
2	**a) 30%** Answers:20	**b) 45%** Answers:30	**c) 15%** Answers:10	**d) 9%** Answers:6
3	**a) 48%** Answers:32	**b) 42%** Answers:28	**c) 5%** Answers:3	**d) 5%** Answers:3
4	**a) 20%** Answers:13	**b) 80%** Answers:53	**c) 0%** Answers:0	**d) 0%** Answers:0
5	**a) 27%** Answers:18	**b) 55%** Answers:36	**c) 15%** Answers:10	**d) 3%** Answers:2
6	**a) 27%** Answers:18	**b) 50%** Answers:33	**c) 15%** Answers:10	**d) 8%** Answers:5
7	**a) 33%** Answers:22	**b) 36%** Answers:24	**c) 27%** Answers:18	**d) 3%** Answers:2
8	**a) 42%** Answers:28	**b) 45%** Answers:30	**c) 11%** Answers:7	**d) 1%** Answers:1
9	**a) 88%** Answers:58	**b) 9%** Answers:6	**c) 1%** Answers:1	**d) 1%** Answers:1
10	**a) 58%** Answers:38	**b) 42%** Answers:28	**c) 0%** Answers:0	**d) 0%** Answers:0
Total percentage	**%39**	**%48**	**%12**	**%4**

Comments of Others:	**Number of participants**	
Question 2: What inspires you most to visit the annual exhibition?	**6 persons**	-The new atmosphere. -The title of the exhibition. -New experience. -Curiosity and enjoyment. - Student's projects. -New theme and original works.
Question 3: How did you know about the annual exhibit?	**3 persons**	-My son is participating in the exhibition. - A friend invitation. -Facebook.
Question 5: Which of the following statements most accurately sums up how you experienced the annual exhibition?	**2 persons**	-Social interests. -Interested in teaching art and design.
Question 7: What is the most important reason do you think makes you want to continue investigating the annual exhibition products?	**2 persons**	-The way of hanging works. -The new technologies used.
Question 10: Do you have any suggestions or feedback to improve the annual exhibition experience for new visitors?	**38 persons**	-Extend the seminars time. -Add more devices to be used. -Need extra seats. -Invite more key speakers from the local community. -Offering programs and workshops for schools as a kind of community service. -Should have clear and concise way finding. -Extra parking areas are recommended. -Having friendly and helpful staff for elder visitors. -Toilets should be clean and well-maintained. -Adding extra information on the exhibits. -Option to be open until afternoon or evening. -Ask for social media to demonstrate the impact of exhibition on visitors experience. -Include online previews of upcoming and current exhibitions. -Visitors should know a brief about the exhibition. -Diversifying opening hours can increase numbers of visitors. -Outdoor spaces can also be used for community gatherings. -Local community would bring new perspectives. -Work in marketing this event for the benefit of the university.

		-Built real relationship with the community. -Stay on top of doing this event. -Be proud of what you achieved. -Search for new funders. -Do research to examine the entire exhibition visitors. -Exhibition visitors can be tracked in a variety of ways. -More Wi-Fi routers or Bluetooth and internet devices can be installed. -Visitors should be more welcome. -Evaluation can be used to identify problems during the design process. -Make sure that all visitors are interested, curious, and possibly surprised. -Discover how visitors interact with the facilities available. -Visitors should feel more comfortable and safer. -Creating positive and memorable experiences for all visitors. -Summative evaluation is important to determine whether a program or exhibition delivered the intended message. -Staff should be able to answer any questions visitors may have. -Don’t tell your visitors how to behave. -New paradigm should be learned. -Encourage visitors to return to your exhibition next year. -Keep up with the current trends. -Have a strategic plan to keep track of progress and make changes as needed.

Appendix 6: Questionnaire (C): Results: Visitors navigating the physical entities in an interior space.

This questionnaire makes use of ranging scales with 4 places; you are asked to answer according to this scale: **1/ Extremely – 2/ Quite Good – 3/ Slightly – 4/ Neither.**

Visitors' navigating the physical entities in an interior space						
	Entrance		**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
 **Entrance**	1	My navigation was influenced by the direction and location of the entrance	Answers:48 %63	Answers:24 %32	Answers:3 %4	Answers:1 %1
	2	Entrance was easily identified	Answers:61 %80	Answers:10 %13	Answers:3 %4	Answers:2 %3
	3	Entrance was spacious	Answers:30 %39	Answers:43 %57	Answers:2 %3	Answers:1 %1
	4	Entrance was attractive for first and last impression	Answers:35 %46	Answers:33 %43	Answers:7 %9	Answers:1 %1
	5	Entrance determinates of the roots of the most visitors and that most visitors turn to the right	Answers:15 %20	Answers:25 %33	Answers:33 %43	Answers:3 %4
	Walls		**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
 **Walls**	1	My navigation was influenced by the directional wall	Answers:42 %55	Answers:24 %32	Answers:8 %11	Answers:2 %3
	2	My navigation was **NOT** influenced by the directional wall	Answers:8 %11	Answers:13 %17	Answers:25 %33	Answers:30 %39
	3	I was easily able to navigate around the directional wall(s)	Answers:52 %68	Answers:22 %29	Answers:1 %1	Answers:1 %1
	4	The directional wall(s) direct me towards either to the left or to the right	Answers:50 %66	Answers:21 %28	Answers:4 %5	Answers:1 %1
	5	I had a good time deciding which direction to navigate around the direction wall(s) before I start moving	Answers:7 %9	Answers:11 %14	Answers:13 %17	Answers:45 %59
	Objects		**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
 **Objects**	1	The object that displayed at the first in the exhibition hall was the most object to be seen than other objects	Answers:45 %59	Answers:22 %29	Answers:7 %9	Answers:2 %3
	2	The physical entities of an object like size, color, material, and position attracted visitor more than another object	Answers:35 %46	Answers:25 %33	Answers:12 %16	Answers:4 %5
	3	Objects were likely appreciated according to its theme, beauty, and authenticity	Answers:50 %66	Answers:22 %29	Answers:3 %4	Answers:1 %1
	4	Objects that were well noticed located in the center of the exhibition hall	Answers:20 %26	Answers:18 %24	Answers:28 %37	Answers:10 %13
	5	Objects that were less noticed located **NOT** in the center of the exhibition hall	Answers:6 %8	Answers:10 %13	Answers:28 %37	Answers:32 %42

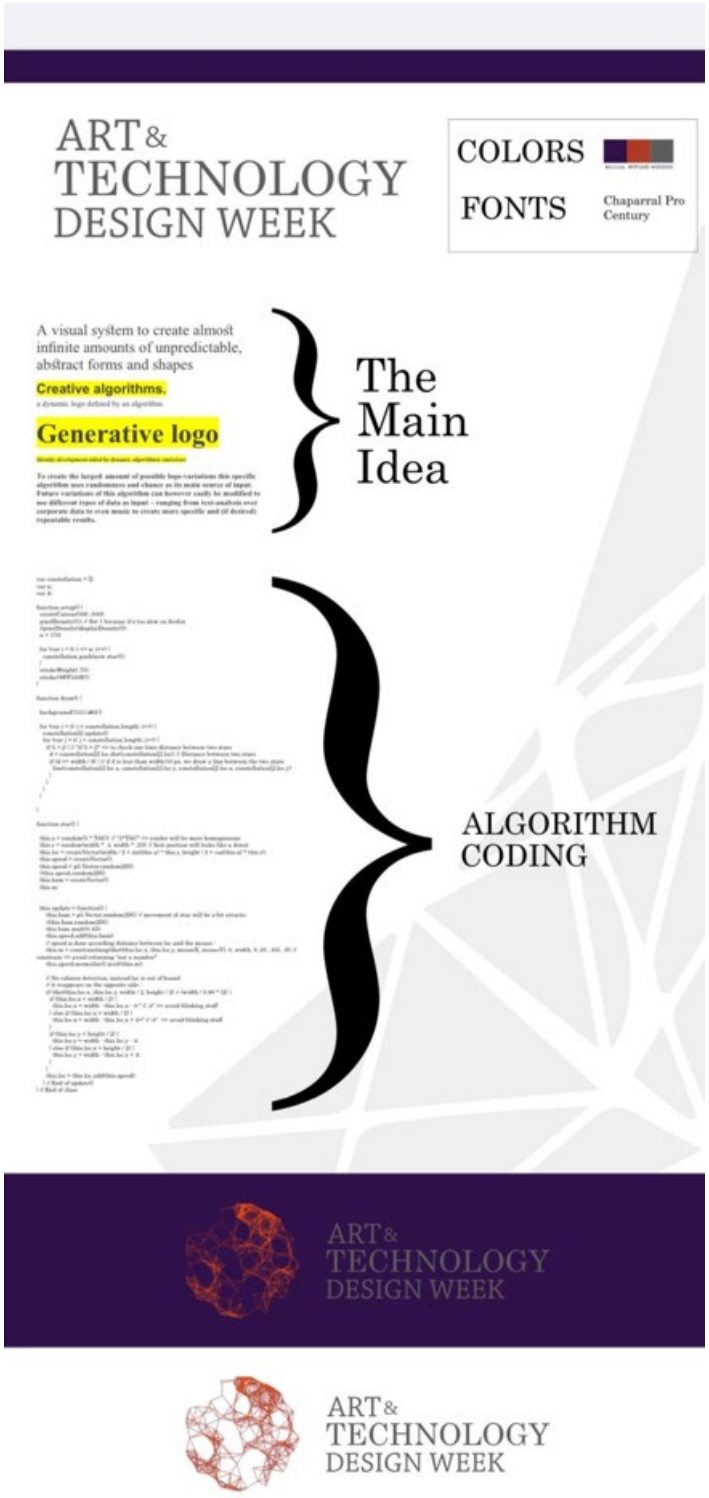
 **Colors**	**Colors**		**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
	1	The color of the exhibition hall affected the perception of visitors and can evokes feelings, and emotions	Answers:53 %70	Answers:17 %22	Answers:4 %5	Answers:2 %3
	2	Warm colors added extra value to the exhibition halls more than the cold colors do	Answers:55 %72	Answers:15 %20	Answers:5 %7	Answers:1 %1
	3	Color can play a master role in the narration way of the exhibition events	Answers:53 %70	Answers:20 %26	Answers:2 %3	Answers:1 %1
	4	Color added extra value to the exhibited objects and highlighted the main characteristics of them	Answers:60 %79	Answers:14 %18	Answers:1 %1	Answers:1 %1
	5	Color can affect your ability to stay more time in the exhibition hall	Answers:42 %55	Answers:31 %41	Answers:2 %3	Answers:1 %1
 **Technology**	**Technology**		**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
	1	The presence of technology in the exhibition has led to making the exhibition a hybrid exhibition that combines modernity in display in addition to the traditional approach in display as well	Answers:63 %83	Answers:10 %13	Answers:2 %3	Answers:1 %1
	2	Technology added to the exhibition a modern and contemporary language that everyone of all age groups understands and interacts with	Answers:56 %74	Answers:18 %24	Answers:1 %1	Answers:1 %1
	3	Technology has created a beautiful interactive atmosphere that visitors and students love and will remain in everyone's memory	Answers:60 %79	Answers:11 %14	Answers:3 %4	Answers:2 %3
	4	The technology display has positively affected the traditional display of the exhibition	Answers:33 %43	Answers:35 %46	Answers:5 %7	Answers:3 %4
	5	The technology display has negatively affected the traditional display of the exhibition	Answers:1 %1	Answers:2 %3	Answers:28 %37	Answers:45 %59

A total of 76 optional surveys were completed anonymously. Here are the results from the prescribed questions.

Questionnaire Results				
Entrance	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1	63%	32%	4%	1%
2	80%	13%	4%	3%
3	39%	57%	3%	1%
4	46%	43%	9%	1%
5	20%	33%	43%	4%
Walls	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1	55%	32%	11%	3%
2	11%	17%	33%	39%
3	68%	29%	1%	1%
4	66%	28%	5%	1%
5	91%	14%	17%	59%
Objects	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1	59%	29%	9%	3%
2	46%	33%	16%	5%
3	66%	29%	4%	1%
4	26%	24%	37%	13%
5	8%	13%	37%	42%
Colors	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1	70%	22%	5%	3%
2	72%	20%	7%	1%
3	70%	26%	3%	1%
4	79%	18%	1%	1%
5	55%	41%	3%	1%
Technology	**1/Extremely**	**2/ Quite Good**	**3/ Slightly**	**4/ Neither**
1	83%	13%	3%	1%
2	74%	24%	1%	1%
3	79%	14%	4%	3%
4	43%	46%	7%	4%
5	1%	3%	37%	59%
Answers Results	**Total** 55%	**Total** 26%	**Total** 12%	**Total** 10%

Appendix 7: Invitation Card.

Appendix 8: Logo Design Process.



Appendix 9: Best Slogans Used for all Departments of the Faculty.

Architecture Department:

1- **‘’Architecture** is the reaching out for **TROUTH’’** . Louis Kahn
2- **‘’**A room is not a room without **NATURAL LIGHT’’**. Louis Kahn
3- **‘’LESS** is **MORE’’** . Mies Van Der Rohe
4- **‘’**I call architecture **FROZEN MUSIC’’** .Johann Wolfgang
5- **‘’**Creativity is nothing, but a **MIND SET FREE’’**. Torrie Asai
6- **‘’**Look at usual things with **UNUSUAL EYES’’** .Saul Bass

Interior Design Department:

1- **‘’**Take **RISKS**, you don’t have **VOICE** if you don’t**’’**. Kelly Wearstler
2- **‘’**You create your own **DECORATION**; You choose your own **MOOD’’**. Philippe Starck
3- **‘’**Learn to **LOOK** not just with your **EYES** but with your **HEART’’**. Kelly Hoppen
4- **‘’DESIGN** is not just it looks like **DESIGN** is how it **WORKS’’.** Steve Jobs
5- **‘’INTERIOR DESIGN** is a business of **TRUST”.** Venus Williams
6- **‘’INTERIOR DESIGN** is about creating a **QUALITY** of life a **BEAUTY** that **NOURISHES** the **SOUL”.** Albert Hadley
7- **‘’**The **BEST INTERIORS** are those that take **YOU** and **YOUR** lifestyle into **CONSIDERATION’’.** Shaynna Blaze

Graphic Design Department:

1- **‘’CREATIVITY** is just **CONNECTING THINGS’’** . Steve Jobs
2- **‘’GOOD** design is obvious, **GREAT** design is **TRANSPARENT’’**. JOE Sparano
3- **‘’DESIGN** is where science and art break even**’’** . Robin Mathew
4- **‘’DESIGN** creates **CULTURE** . Culture shapes **VALUES**. Values determine the **FUTURE’’**. Robert Peters

Animation Department:

1- ‘’ANIMATION offers a medium of storytelling and visual entertainment which can bring pleasure and information to people of all ages everywhere in the world**’’** . Walt Disney

2- ‘’ ANIMATION is not the art of drawings that move but the art of **MOVEMENTS** that are drawn **‘’**. Norman McLaren

3- ‘’What I love most about **ANIMATION** is, it’s a team sport and everything we do is about **PURE IMAGENATION** ‘’. Jeffrey Katzenberg

4- ‘’ I am an **ANIMATOR** . I feel like I’m the manager of an **ANIMATION CINEMA FACTORY ‘’**. Hayao Miyazaki

Appendix 10:

International Conference on Education, Language, Art and Intercultural Communication (ICELAIC 2014)

The Analysis of the Effective Communication of Visual Information on Modern Exhibition Space

Yuan Chen[1]
Shandong Women's College Jinan, China
e-mail: zy_wlh@126.com

Xin Bian[2]
Shandong Women's College Jinan,China
e-mail:155051477@qq.com

***Abstract*—In recent years, the government has increased its support for cultural creative industry, which makes the exhibition play an important role in economic development as cultural "soft power". While effective communication of visual information will directly affect the success of exhibition. This thesis from the view of visual communication tries analyzing visual information content in exhibition and the factor affecting the effective communication of visual information and finally concludes the method of improving the efficiency of visual information transmission.**

Keywords—exhibition; visual information; effective communication

I. INTRODUCTION

Exhibition as a comprehensive display media undertakes the function of information Display Space spreading and exchange. Early in primitive period， human society had already utilized simple display means or media to carry out demonstration activities. Nowadays, the exhibition has become "soft power" of local economic development. Exhibition display space as a media of information spreading is a dynamic process rather than a static process. Sponsors use various display means and technology of showing exhibits， shape atmosphere of display space and spread information to recommend the image of display body. This process reflects the nature of display——information spreading and exchange. Exhibition is obviously different from the common display space. Specifically exhibition has distinct timeliness and seasonality，the general display time of the exhibition is 2-5 days. Large amount of information is spread in short period which undoubtedly tests spectators' receptivity. How to improve the efficiency of visual information transmit in modern exhibition is a problem to ponder.

Information communication is a basic way to meet human material life and rich spiritual life. Only through the information communication, the need of human existence and development can be satisfied. Information language is mainly divided into the sensitive one and the rational one. In the sensitive one, people generate a fell and express it through graphic or visual language. While the rational one is a rational analysis. It is like the sensitive information language finally express through visual language. Thus we can obtain that effectively acquiring the visual Information is vital to the information spreading and communication.

II. CONTENT OF VISUAL INFORMATION IN EXHIBITION

Visual information in exhibition is various. Almost the elements we can see are all visual information. It includes the following aspects:

A. Color

In exhibition display space, the color mainly includes spatial interface color, exhibit color, publicity page color, lighting color and etc. Color as the direct visual element in display space affects location of spatial theme and selection of style and atmosphere. Color can let the display space obtain more emotionality artistry.(Fig.1)

B. Image-text

Image-text is the main mean to acquire the spreading information. Comparing with the color as visual feel, image-text is the visual express. Image-text information in exhibition is reflected by logo design, single publicity page design, poster design, layout design and etc. (Fig.2, Fig.1)

Fig. 1. The China Pavilion Of Yeosu Korea Expo 2012

Fig. 2. The Map of China .Suzhou International Culture&Design Industry Fair

Fig. 3. The Tickets of the China.Suzhou International Culture&Design Industry Fair

C. Illumination

Illumination design in exhibition display is mainly classified into space natural illumination and artificial illumination. There into artificial illumination includes integral illumination, local illumination, feature light. Illumination not only satisfies the need for indoor lighting, but also presents the display atmosphere. Because of the character of exhibition site, the art environment constructing by using natural illumination is far from enough as the basic illumination. It needs certain artificial illumination to control display effect and represent exhibit character.(Fig. 4)

D. Material

Material is a kind of visual information which is easily neglected. It is the necessary part of information express and constructing environment and also the basis for realizing the spatial creativity. Novel material and exquisite craftsmanship can attract spectators' attention to have a deep mental impression.(Fig. 5)

Fig. 4. The Poland Pavilion of Shanghai World Expo

Fig. 5. The Macao Pavilion of the 8th ICCIE in Shenzhen

III. THE FACTORS AFFECTING VISUAL INFORMATION TRANSMIT EFFICIENCY

A. Psychological factors

Psychology is the reflection of objective things and their connections in brain. Analyzing information transmit efficiency besides considering the visual factors, it also needs to consider spectators psychological change. For example the different volume and scale of display space make the spectators have different cognitive effects. Large volume space generates a feel of greatness and broadness, and then the association that enterprise is powerful, has large investigation and good service. And the little space with the delicate exhibit and comfortable environment will give receiver such a psychological hint: high-end, taste, delicacy. The designer should according to receiver's psychological features design material space and emotional space. When the design idea and receiver's psychology conflict, the receiver's psychological demands should be respected and their action and interest of participating in the exhibition activities should be fully aroused. Thus, visual information transmission can gain the good effect.

B. Visual factors

Surveys shows that 83% human's cognition of surrounding environment and capture of information is gained by the visual. Eyes are like a camera, first shoot the thing, then introduce it into the brain, complete cognitive process. In exhibition display space, we cannot but consider visual information receptivity and The length of receiver's stay. Blindly pursue the enrichment and expand of information quantity of information transmit as many as possible in the extremely limited space, this action according to visual physiological law will greatly decrease the transmit efficiency. Firstly, the visual bearing scale is limited, lots of information crowding makes the spectators' visual uncomfortable and causes visual fatigue. While this inferior stimulation let them fell dull to the display things. Secondly, human's memory has oblivion rules. Numerous information cover is not useful for the memorization of main information. For example, a spectator visit the displace space which has too much to watch, carelessly watch all things and receives lots information. According to brain's oblivion rules, just a small part of the information which can be memorized and others are wasted. At last, complicated and strange visual image will occupy multidimensional information channel. When people are

unfamiliar with the display image, their central nervous will occupy more information channels and the speed of cognition becomes slow. While using the simple image will make the spectator memorize easily and have deep impression. This is the simplicity of visual information. Therefore we should in order and efficiently have reasonable arrangement for transmitting information to improve the transit efficiency.

C. Technical factors

The technical level can directly or indirectly affects the efficiency of information transmission. With the development of scientific and the appearance of various new techniques and materials, exhibition as the display platform of new media and technology satisfies receivers' curiosity and desire for knowledge. Expression of multimedia technology expands exhibition capacity makes single and traditional static display transform into the multiple and dynamic display. For example, Shanghai World Expo set up the online World Expo to be convenient for spectators to visit(Fig. 6). It comprehensively introduced the World Expo through words, images, video and three-dimensional animation to let the spectators know dynamics of World Expo staying at home. Moreover Zaozhuang Pavilion of the 4th ICCIE in Shandong adopted virtual interactive equipment. Interactive video equipment is installed on the ground for audience entertainment and ornamental. It fully abstracts local cultural character and realizes the perfect combination of culture, technology and art.(Fig. 7)

Figure 5. The online World Expo Of Shanghai World Expo

Figure 6. Zaozhuang Pavilion of the 4th ICCIE in Shandong

IV. METHODS OF IMPROVING VISUAL INFORMATION TRANSMIT EFFICIENCY

Exhibition can efficiently spread information and is the window for numerous exhibitors to promulgate enterprise image and culture. To at maximum attract receiver's interest, at the aspects such as the display image, display method and display content exhibitors adopt various forms to compete with each other. But the multidimensional display information can not reflect the efficient receive of information. We should from the scientific view utilize the advantage of visual transmission and improve the information transmit efficiency to let the receivers digest the information in the shortest time. Only in this way the biggest benefit can be gained. Through the survey, we summarize the following methods to improve the efficiency of visual information transmission:

A. Integrating information

In actual life, what we contact with are isolated individuals, while these individuals connect with each other. To acquire precise and complete information, our brain is needed to screen and integrate the present sensitive materials and express by using corresponding media and technical method. In exhibition Display Space, the information transmission is such a process. The designers collect numerous relevant information select and handle the muddle materials and information. For example, in the initial design of the exhibition, designers should fully analyze the object the display information transmits to. And they should investigate receivers' age, sex, job and hobby and etc. Then choose the valuable information and rearrange them. The information integration can help us classify the primary and secondary and choose the suitable technical methods and display media to accurately design display content according spectators' interest. This can not only improve the efficiency but also the quality of information transmission.

B. Controlling Information amount

Vision is the main method for human to know the world and get information. Comparing with other methods of feeling, the information the vision gets is the most. However, the information receptivity is not equal to information storage. Contrarily the large information acquisition sometimes can affect information storage. To get the best transmit effect, information should be extracted and processed. Visual sign which increases the recognition speed is chosen in display activities as possible. At the same time, in the exhibition Display Space, clear information signs should be adopted as possible to reach the normal value of visual information capacity. For example, enlarge the area of visual sign; adopt contrast technique of large and small, sparseness and intense, Brightness and dinginess and etc. to improve the visual Cognition; Using modeling, color and other visual elements replaces literal introduction to shorten the fixation time and increase the information amount. While in the gangway, passage and other spatial environments where is not convenient for the spectators to stay, excess visual transmit information will not be arranged.

C. Increasing information intensity

The so-called increasing information intensity refers to letting the transmission strength of transmit information exceed other information's to exclude other secondary information. In exhibition display space, there are many ways to stress and intensify the information. For example, use the center set method to stress it in the location, then use special illumination to render the atmosphere and highlight to reach the high efficiency of information transmission through the method of emphasis; also can use illumination to highlight the enterprise name, enlarge sign or typeface, use special materials and methods to show the exhibits, still can weaken surrounding environment and secondary information to stress important information. In total, these methods of increasing information intensity can let the display visual information more striking and attractive.

D. Selecting the efficient transmit method

Exhibition activity is a multi - directional opening activity of information spreading and exchange the information. The development of the modern technology extends many media methods and the way of receiving information becomes multidimensional and shortcut. It is possible for diverse transmit methods to interfere receivers the diverse transmit methods without effective guide. To lead the spectator to comprehensively know the information, firstly consider the content of exhibition information transmission from the outside to the inside and proceed from one point to another. For example, displaying a handicraft, the key point of display it is not purely place a product, moreover make the spectators have a process of receiving information from sensitive to rational recognition through the exhibits' price and constructing cultural atmosphere and etc. Then, make the exhibition method to express clear, exact and active information. Traditional and single static exhibition method can not meet spectators' psychology of requiring various change, modern exhibition need us to choose various display methods to comprehensively and actively grasp exhibits' character. At last use the flexible and reasonable display forms. If the limited time and space can not allow comprehensively showing the content of display, we can spread the print information materials to the spectators or host Special report, forum and use other forms to transmit information.

ACKNOWLEDGMENT

Vision is information window and transmission is information media. Visual information as the main transmit method in the exhibition display space relates to the spectators' information acquisition and the exhibitors' economic interests and exhibition object. Analysis shows that the efficient transmission of visual information has ways to be found. By the way of integrating information, controlling information amount, increasing information intensity and selecting the efficient transmit method, we can clearly and accurately transmit visual information accompanied by the improvement of transmission efficiency.

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Appendix 11:

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Research on Experiential Design of Automobile Exhibition Space

Junwen Luo
Wuhan Textile University Wuhan, China 430073

Kai Cao
Wuhan Textile University Wuhan, China 430073

***Abstract*—In recent years, designers have shifted from focusing on the auto product itself to the connection between "cars" and "people", mainly focusing on interactive and experiential designs. The variety of forms of the exhibition space design can arouse the interest of the visitors and mobilize the enthusiasm of the visitors to participate in the experience. This paper analyzes the characteristics of experiential design at home and abroad through literature research and field visits to Chinese and foreign excellent automobile exhibition spaces, and then explores relevant design strategies to provide design ideas and development possibilities and advantages for the future.**

Keywords: experience design, exhibition space design, car showrooms

I. INTRODUCTION

China is a country with a large demand for automobile consumption. The booming automobile industry is accompanied by an immature automobile consumption market. At the same time, consumers have higher aesthetics and more requirements for automobile exhibition space. The car display space is simply divided into two types: as a static display of goods, the car product information is concentrated in the space to realize visual materialization and give visitors a visual experience. During the dynamic display, activities, operations, and interaction are used to let visitors more directly understand the functions and characteristics of automotive products. As designers continue to explore the field of automotive display space design, experiential display space design has emerged, with "experience" as the starting point. Visitors are enthusiastic about the various sensory experiences in the exhibition space, including the reflection of various car characteristics and corporate brand cultural characteristics in the space, which are forming effective experience interactions with visitors. In the design of automobile display space, it is of great importance to put people first in the design process and deal with the relationship among people, people and space, and people and exhibits. Through such an interactive relationship, it is especially important to combine information transmission with interactive experience.

II. THE CONCEPT AND CHARACTERISTICS OF EXPERIENTIAL DESIGN

A. The concept of experiential design

Experience refers to an internal reaction and cognitive state that people experience in person. From a psychological perspective, psychologist Freud proposed "experiencing the immediate feelings of people at a certain moment in life, including memories of past things, feelings about the current situation, and expectations for the future." In the car exhibition space, visitors' perception of existing car products and their experience of existing products form a future outlook on car experience. From a physiological perspective, experience has more diverse elements. Experience through the sensory experience of the visitor, that is, the external environment stimulates the senses of sight, hearing, and touch and so on. Visitors practice exploration by observing automobile exhibits, experiencing the operation of physical cars, listening to or reading stories of automobile brands.

B. Features of experiential design

The concept of automobile exhibition space is relatively broad. The existing automobile exhibition space in China includes museums, science and technology museums, automobile showrooms of 4S shops, etc. But no matter what kind of car showroom, it is developing in the direction of experiential design. In the design of the automobile exhibition space, the designer takes "human experience" as the core, focuses on integrating the experiential design concept, pays attention to the interaction between human sensory emotions and the exhibition space. The application of new technologies in the space increases the diversity of interactive experiences. The space is an experience center that integrates display, education, entertainment and other specific functions.

III. CASE ANALYSIS IN CHINA AND FOREIGN COUNTRIES

A. Experiential construction of Italian National Automobile Museum

The National Automobile Museum of Italy is located in Turin, the third largest city in Italy. It not only embodies Italy's long cultural history, but also is an important industrial center after World War II. It is especially famous

for its automotive manufacturing. The exterior building of the whole building adopts a streamlined design similar to a car, and the transparent metal curtain wall adds the coldness of the products of industrial era. The three floors of the building have different themes. The first floor is the design of the car, the second floor is the car and the people, and the third floor is the development of the car. The order of the visits is from top to bottom. First, the history of the birth, development, and evolution of the car is displayed on the third floor of the venue. The hall of the venue has a full black background, designed to create spotlight-like lighting, especially highlighting the exhibits and significantly showing the development history of the car in an interesting way. First, the car's predecessor, that is, the carriage in various forms, is displayed on a wall in the form of photos and models. In the museum, the first draft of the car design — the drawing of the first concept car designed by a remarkable talent of many years, Da Vinci, was restored into a physical object. Then came the original steam robot vehicle and modern energy-saving cars, which completely restored the development history of the car in the form of a model. At the same time, the museum collects 20 original cars from 1769 to 2006, involving more than 80 car brands in 8 countries. It is worth noting that the treasure of the museum tells the wonderful fate with China. In the 1907 car rally, the Itara 3545 drove from Beijing to Paris for a total of 60 days, finishing first, well ahead of the runner-up by 20 days. On the third floor, it not only shows the convenience of car civilization to human beings, but also warns people of environmental pollution caused by cars. On the other side of the black theme, it shows possible solutions for energy- efficient cars in the future. The second floor of the venue mainly displays cars and human-derived items, such as the 19th century automobile production line, the evolution history of engines and tires, etc., which has the effect of popularizing knowledge to visitors. The most eye-catching exhibition hall on the second floor is a map of Turin's city, and the ground is puzzle pieces consisting of hundreds of display screens. The picture not only shows the original appearance of Turin's city, but also labels all the car-related information, car manufacturers in the city, car design companies, etc. Also on the map, there is a Moore Dig 500 donated by a private collector and a model of the Turin landmark Mole Antonelliana on the roof. Another scene is the display of various types of racing cars. The racing cars are displayed on the display screen of the simulated racing track. The display of the screen gives the racing car a dynamic sense. The whole visit process is very interesting. The first floor of the venue mainly shows the design of cars, and the exhibition related to automobiles is mainly held to enhance the interactive experience with visitors.

The Italian National Automobile Museum's theme centers on cars, merging the cultural history of cars, collections of many classic cars, and exhibitions of designers' works, etc., which is not limited to the traditional way of display and textual display, but also uses a variety of dynamic methods to strengthen the theme. It also popularizes visitors' car knowledge with interactive experience, which increases the fun of car knowledge and enhances the enthusiasm of visitors.

B. Experiential construction of Beijing Automobile Museum

As the first automobile museum in China, Beijing Automobile Museum has great historical significance for China's automobile exhibition space. The facade of the whole building is an aluminum metal mesh screen. Most of the facades on the first floor use glass curtain walls. The overall architectural style is streamlined. The overlook angle shape is similar to eyes. The shape is full of tension and has the dynamic of the car. The flat structure is more obvious; the middle of the second floor and above is a circular hollow, which is flexible around the atrium. The main exhibitions are on the fifth, fourth, and third floors. The corresponding contents are the creation hall, the progress hall, and the future hall. The corresponding main colors are red, yellow, and green. Each of the exhibition halls condenses the content of the entire floor, making each small part into a whole. The viewing order is from high to low. First, on the fifth floor, the main color is red. The eye-catching five-star red flag element is everywhere. It mainly shows the history of the development of the car. The exhibition hall is mainly model and multimedia. The birth and development of automobiles are integrated with Chinese elements, from the wheels that were first in the Chinese civilization to modern steam engines, from the display of some prototypes of foreign cars, to the first "Dongfeng" sedan produced since the founding of New China, the way of not being constrained by the traditional typesetting and layout, and flexibly using the space layout, show most of the cultural relics and vehicle prototypes. Visitors experience a vivid history of the development of cars. On the fourth floor, the main color is yellow. The "deconstructed car" at the entrance lays the tone of the entire venue. A car model is split into more than 20,000 parts and displayed in a hanging manner. The intuitive and stunning visual effects are presented in front of visitors. There are also many interactive scenes in the venue, such as the "Automobile Design" area. Through computer- aided design, visitors assemble auto parts by themselves to complete their own unique car design. "Extreme driving" in motorsport simulates the real racing scene, allowing visitors to experience the joy of galloping on the field. Among them, "Dancing with the Wind" and "Safety Performance Lab" in the engineering and technical venues allow visitors to learn aerodynamics and driving safety measures in immersive scenes. On the last third floor, the main color is green, and there is ubiquitous visual impact in the venue. The symbolic display of the entrance is countless small white squares. The green light penetrates behind the small white squares, and the small squares carry countless works of design competitions hosted in the museum, indicating that there are countless possibilities to create in the future. Among the scenes of car charm, one of them is that colorful posters are chaotically pasted on the surface of a car or floor, showing the era of car advertising to visitors in a pope art form. In the "Auto Life" exhibition area, the classic car scenes in the movie are displayed. Multimedia and mechanical transmissions provide visitors with a full-scale immersive experience that simulates

the real atmosphere of movie scenes. The third-floor exhibition hall also shows visitors the negative impact of cars on resources and the environment and the prospect of the coming of the intelligent era, which is of educational significance. Through the numerous experiences, the overall venue has given visitors a car museum with a combination of display, education, entertainment and experience.

IV. Experiential design strategies for automotive exhibition space

A. Focusing on the sensory and emotional experience of visitors

In the design of experiential display space, designers should pay attention to creating display scenarios and the sensory experience and emotional atmosphere of visitors, so as to increase the value of exhibition content. The sensory experience includes sight, hearing, smell, and touch. Visually, the experience of the overall theme is particularly important. For example, in the Beijing Automobile Museum, each floor of the exhibition hall has its main color, and there is a red exhibition hall to express the sense of history as well as a green exhibition hall with a sense of science and technology, which have laid the foundation for creating a space atmosphere. The control of the details in the automobile museum is also particularly important. The presentation of the car's shape, material and color will help the audience to deepen their understanding of the car brand and culture. Acoustically, background music can shape the ambient atmosphere and express the meaning of the space, and at the same time distinguish the noise space, helping visitors to integrate into the scene faster. Emotional experiences include atmosphere creation and emotional resonance. Atmosphere creation can be understood as the expression of the theme in the exhibition hall. Circumstances are set in the scene. For example, the Italian National Automobile Museum has a total of three floors. Each floor has a corresponding theme. In the racing scene in the car and people showroom on the second floor, the Ferrari cars are displayed on the track in a uniform manner, as if you can experience the thrill and excitement of the race. Emotional resonance is the setting of scenes related to the daily life of the visitor, and it is more likely to cause the visitor to think and resonate. For example, in the Beijing Automobile Museum, the cars in the movies of "007" and "Batman 6" are moved to the exhibition hall. In the form of multimedia and mechanical transmission devices, immersive experiences are more likely to cause emotional resonance and produce emotional experiences.

B. Focusing on the interactive experience of visitors

In specific display scenarios, creating an interactive experience for visitors is particularly important. The first is the communication and thinking caused by the interaction between people. A single car chariot, the way of displaying pictures and text is far from enough, and more ways need to be provided. For example, in the Beijing Automobile Museum, to show the origin of the automobile, more questions are used to guide visitors into the experience. The touch of multimedia technology and the induction device of various electronic screens allow visitors to have time to think and discuss with people around them, so as to form the interactive experience between people while learning automobile knowledge. The second is the interactive experience between people and technology. The existing multimedia technology not only allows visitors to experience the simple entertainment experience of simulating driving a car, but also is an experience process that is fun and educational. For example, in the "Auto Design" exhibition area of the Beijing Automobile Museum, with the help of computer-aided devices, people can design the whole vehicle or spare parts to design the car in their heart. In the "Children's Driving School" exhibition area, children can learn traffic knowledge through car simulation devices, and at the same time, the multimedia large screen can popularize self-protection knowledge while driving.

C. Focusing on the application of new technologies

In the context of the rapid development of science and technology, many new technologies have begun to appear, injecting new blood into the design of the experiential exhibition space, making the traditional exhibition space change from static to dynamic, from physical to virtual, and visitors can change from passive learners to experiencers. In the traditional display mode, the story is only narrated with the car as the theme. The new technology uses virtual images and virtual interaction as the carrier to present a diverse display scene to the visitors. The most common is the actual operation simulation technology. By simulating a certain scene around the driving of a car, you can complete experiences such as entertainment, education, and interaction. The second is multimedia touch screen technology. This technology can be used to display all aspects of the space. It has widely used automotive knowledge, panoramic map browsing, touch screen game interaction, and gives participants a variety of choices. The last is the holographic projection technology. This technology is not limited by the venue. Audiences can see clear images, comprehensive angles and three-dimensional objects, which more clearly display all kinds of information about the exhibits and increase the interest of the exhibition space and the interactive experience. For example, the light and shadow technology in the Beijing Automobile Museum, masters of automotive design, including William Maybat, are projected on the large screen. Visitors can talk with these masters through time and space.

V. Conclusion

It is a general trend that the automobile exhibition space brings various experiences to the public. Through the analysis of actual cases in China and foreign countries, this article finds some ready-made laws and finds some angles to dig. The designer takes the "experience" as the starting point and pays attention to the sensory and emotional experience of the visitor, which can significantly increase the participation of the visitor and lay emphasis on the resonance of the mind while paying attention to the sensory experience;

it pays attention to the interactive experience of visitors. When participating in the interaction, visitors deepen their understanding of the displayed information and form a deep understanding; they pay attention to the application of new technologies, increase the fun of experience, and experience the charm of high technology. These all provide some new perspectives for the design of automotive exhibition space. However, despite the fact that experiential design is actually applied to the automotive exhibition space, there are still many problems that need to be explored and discovered.

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Appendix 12:

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Introduction to Environmental Psychology and Applications for Modern Interior Design

Xiaodong Zhang

Institute of environmental art. Hebei Institute of Fine Art, ShiJiaZhuang HeBei, 050700, China

123EEE@163.com

Keywords: Environmental psychology, interior design, guiding theory

Abstract. Up to now, the interior design development already became a capacity of environment psychology. Ergonomics and aesthetics were one of the integrated disciplines. Compared with previous, it more emphasis on "people-oriented" design concept, emphasizes on the feelings of people as the ultimate goal of design. Environmental psychology is precisely in this context, with the constant improvement of interior design discipline, its important role in the interior design has been emerging as a modern interior design theory.

Introduction

Modern interior design is an involved in engineering, art, ecology, environmental psychology and other disciplines of knowledge borderline subject, the essence is to create safe, comfortable, pleasant, and rich aesthetic feeling of the indoor environment. And environmental psychology is supporting the professional essential theoretical foundation. Because the primary problem of modern interior design is to solve and the problem of the relationship between the indoor environment (physical and psychological), do not know people in different psychological and behavioral characteristics and law of environment, will not be able to science and art to deal with the relationship between the elements in the design of indoor environment, also won't be able to create conform to the need of the indoor environment. Environmental psychology from the Angle of the psychology to explore what kind of environment is to match people's wish of a science. Its application in the interior design is mainly reflected in two aspects; One is the study of living environment (all for human production and life of the indoor environment, to the person's psychology influence; it is to study the psychological needs of the demands of our customers, and according to the psychological needs of people, adjustment, improve, and improve the quality of living environment.) Around the two themes in this paper, through analysis the status quo of environmental psychology in the modern interior design, people on indoor environmental elements of cognition and perception, behavior of interior space design, psychological feelings of the individual differences of the influence of the impact on the interior design style and so on four aspects to illustrate the specific influence to the modern interior design environment psychology.

Interior design and emotional attention

The function of interior design

Interior design in the basic solution to the problem of two aspects: first is the material level, including the use of the function of the meet, the division of space, the relationship between material and structure, construction and technology such as: the second is the spiritual level, namely all kinds of space on the user's emotional and aesthetic impact. In the current which is more important.

With the coming of information society, the progress and development of science and technology, people's mode of production and way of life has been greatly improved and improve. At the same time, the negative impact of industrial society has become increasingly prominent, such as unlimited resources exploitation, ecological environment destruction and pollution, intense work pressure, drab cold working environment and loss of the traditional cultural characteristics in various areas of the world. People come to realize that the earth is not destroyed, environment and our life more and more strange. Humans are beginning to go beyond the satisfaction of material life, to a higher level of emotional and spiritual satisfaction.

The emotional attention in the form and function of interior design

Interior designers in the design, although the design thinking as the dominant position, but with design thinking alone, also can't do the deeper level, also need designers into emotional. In liu xie "wen-hsin-diao-long" in put forward "to love", with true feelings into writing, against affectation, vocabulary stack. The artistic creation of "moving people by feeling" is often put forward, the artist will require creative passionately. Interior designers also also need to invest in the design of emotions, including the attention to the ecological environment, the attention to people's physical and mental, the attention to cultural traditions, etc.

Interior space is provided to the people to carry out the study, work, leisure, entertainment and communication, she not only meet such, use of daily life and physiological needs, should also allow users to enjoy high quality of the space environment: some space image searing, exciting and inspiring; Some natural space image, let a person feel considerate and thoughtful everywhere; Some unique interior space image, fully display the charm of users. The high quality of the space environment means that the user's mental and emotional got fully satisfied.

Historical development and the change of the emotional focus in interior design For religion and the interior design of the sovereign of emotional attention

"Human nearly 5 000 design of civilization is a history of design for power and wealth". Before the industrial revolution of the architecture and indoor space design key is basically serve for religion, royalty and aristocracy, the king and the Pope are using palaces, churches, architecture and interior space to create an atmosphere of service.

To maintain its rule in Egypt the temple of tall, magnificent internally with massive, pillar, column group of design major is not for its structure and bearing, and the main purpose is to make the mysterious religious atmosphere and deterrence. Massive columns interrupt the line of sight of people everywhere, thick column group of blocking the light, make the hall light is dark, thick high stand column group of squeezing into the space is narrow, have majesty, stunning the psychological effects on people, make people nervous, timid and distress, so as to achieve to fear god and god is the embodiment of the pharaoh, with the purpose of the worship of the emotional concern of interior design is very clear. The European baroque and rococo palace, strange exaggerated modelling, the adornment of overelaborate, luxurious decoration materials, which ignores practical function each other race than luxury, tried to show its position and power in form, reflecting the Kings and nobles excessively to show off their wealth, and the pursuit of pleasure feelings. At the same time also reflects the nobles pale extravagant, decadent life.

For the popularization of interior design of emotional attention

After the industrial revolution, construction and interior space design focus to the ordinary people, from the palaces, churches, to public facilities and residential. "once the design meet the object is the public, it has modern means", the modern interior design is with the development of industrial civilization, modern interior design of the public's work and life, is the study of physiological and

psychological characteristics of ordinary people, is the use of advanced industrial equipment for mass production of materials, create a healthy and comfortable accord with modern ethical living space. [1]

Pay attention to the characteristics of contemporary interior design and emotion Interior design of ecological environmental protection of emotional attention

Contemporary society is the most urgent to solve the issues of ecological, environmental sustainable development. For office space, whether national or commercial space, residential space, even in a large number of land use and consume the limited resources on earth, most of them are non-renewable resources, such as granite, marble, stone is unlimited by mining and use, in be being designed indoors, stone, wood and rare metals used in great quantities, the resources of our country and the world is undoubtedly a disaster; Followed by the waste of energy. Some form of one-sided pursuit of interior design atmosphere, not the active adoption of natural light and excessive pursuit of lighting effects, regardless of the natural ventilation and heat preservation and the scope and increase the use of air conditioning, make energy consumption increase.

At present, the variety of interior decoration materials, a large number of chemical synthetic materials, due to the interests of the driven by some manufacturer's product quality can not meet the national quality standard, the environmental pollution by harmful substances, great harm on human itself. More serious is that some of them are not recycled materials. Due to the characteristics of interior decoration, the update speed faster, conversion of abandoned adornment material, become the pollution of the environment construction waste, according to concerning sectional statistic, it accounts for 340/0 in the pollution of the environment.

Therefore, designer has a long way in the contemporary interior design, not only vision to open, and to look more in the long run; Should not only pay attention to the interior space environment design, should pay attention to the environmental quality of the whole human society more love life, love of the earth to the survival of humans.

The feelings of the traditional culture, focus on interior design

Is a precious spiritual wealth of human traditional culture, inherit and develop traditional culture is an important problem. Each national survival and development in every nation proud boasts rich traditional culture, people hold profound feelings of this national outstanding traditional culture, ethnic traditional culture contains a unique distinctive philosophy, aesthetic views and form language, fully tap, to carry forward in today's society. The function of the modernism advocates "form follows function", opposed to the inheritance of traditional culture, by the United States into the world, form the international style, cause too drab, inflexible, in the form of this period of interior design focus on the abstract "human", without regional characteristics and traditional culture. Against tradition and modernism design adornment, advocating "less is more" point of view, and the result cut the human historical and cultural heritage, causing the regional nationality emotion by inhibition of the traditional culture. Since postmodernism, appeared a lot of interior design with the fine aspects of traditional culture is closely related to the design [2]. Pei xiangshan hotel four seasons hall, indoor design fully absorbed the Chinese traditional garden and the design theory and method of folk houses, and created the modern interior space, with Chinese style for Chinese interior design has set a good example.

Interior design on the natural environment of emotional attention

21st century, the rapid growth of population, the advancement of urbanization and the improvement of housing conditions, high-rise buildings in the city. The arrival of information age, digital product deep into every family and office space. Human form to connect with nature in the dwindling, everywhere is the furniture of the metope of the hard, cold and unfamiliar space. So in terms of interior design material selection, the use of natural materials become the main means of interior design, closely associated with human beings in the natural material of cotton, wood, bamboo, materials such as earth, stone, these materials can fully display the beauty of nature, closer to the distance between human and nature, and the comfort of the human spirit and the emotion. In the space of interior design to create, introduces indoor outdoor space, or to communicate with each

other and penetration, indoor and outdoor space to create the state of nature.
Historically, human and nature is inseparable, natural for human survival and development provides the basic and necessary material conditions, depend on natural, return to nature, is human nature, man and heaven and earth.

The aging of the interior design of emotional attention

Aging is also a important problem in today's society, the world health organization definition, aging rate at 0. 700 ~ 1400 for aging countries. At present, the Shanghai, Beijing, tianjin, jiangsu and zhejiang and other places of the ageing population ratio has exceeded 1000, 130 million elderly people. Study of the elderly living space, the creation of the care for the elderly health environment, it is also one of the focus of contemporary interior design emotional [3].
People have declined after 60 years old, the body function, at the age of 75 after the most significant drop in walking, hearing, vision. From psychological aspect, the elderly are more likely to suffer from loneliness. Therefore according to the characteristics of the elderly, they need some special space environment, indoor stylist people more to devote a great deal of love and emotion, let old people comfortable and healthy old age. The elderly bedroom appropriate design in sunny sun, sunshine have great health benefits for the elderly: this is because, first of all, the old body function decline, weakened resistance to virus, bacteria, plenty of sunshine can sterilization and purification air, meet the needs of the indoor health care; Second lack of high quality in the elderly of sunlight, easy to suffer from osteoporosis disease. Such as the elderly disabled at the same time, the interior design should be fully considered, especially the stairs, corridor, the balcony and the design of the toilet, to reduce the ground fall of on any form of design, corridor as far as possible need not smooth material on the ground, metope without brittle material such as glass, adding armrest toilet facilities, to facilitate the elderly sit up energy.
China since ancient times will have a good tradition of respect elders, care for the elderly is the responsibility of the society, for the elderly health, comfort, safety of interior space, interior designers are in duty.

Interior design for individual development of emotional attention

In recent years, the interior design tend to "money" and "vulgar", the essence of which reflects some social problems: one is the designer and the user's quality is not high, blind imitation or mechanical copying someone else's design, resulting in "bedroom HaoHuaHua", "material costliness" unrealistic design; Part 2 it is to reflect the lives of corruption and possessiveness for wealth. Into a period of diversification of contemporary society, people advocate self and innovation, the pursuit of the perfect personality. Interior design to shape the distinctive bright individual character space, meet the needs of the individual character, also cultivate people personalized aesthetic pursuit.
Contemporary interior design style in a variety of forms, but one thing is for sure, is from the Angle of the material and spiritual emotion focus depth, the width of the range, type, are each an interior designer should carefully thinking and research. Design, every designer should have beneficial in nature, society and human, for humans to create positive and full of healthy, active years of work and life environment.

In the modern interior design, environmental psychology status quo

Environmental psychology in the application of interior design in our country has been developed in recent years, but in the context of a "harmonious society", people have generally realized the importance of environmental psychology to the interior environment design, also is some people spare no effort to the nature of the plants, water, rocks, etc is copied to the real life to meet their desire for the nature. Especially in the modern science and technology rapid development and people's material and cultural level under the premise of constantly improve, to apply environmental psychology trends in interior design.

And obviously. In fact most of the time, our production and living in the making and the right of life of building and indoor environment. Such as Chongqing Jiangbei a building, the use of very large residential buildings made of reinforced concrete structures, because the height is too high, single space combination and too complicated, in which makes people like entering a isolated from natural electromagnetic field of Faraday shield room. In the case of loss of natural electromagnetic field due to the function of the body, can't keep balance state, so often feel anxiety and panic, over a certain period of time can also affect the physical health and work efficiency. And as now the indoor decoration construction site, carpenter, oil workers, bricklayer's electrician into together, such as saws, electric hammer, such as voice everywhere, smoke, the smell of the stimulus was in the air. At the same time, more and more in indoor decoration of the use of environmentally friendly materials, not only bring high consumption of resources and energy, is also a serious threat to the people's living environment, endangering our health. The above listed several examples, completely broke our expectations of realistic environment, but also with the spirit of environmental psychology concept.

A person's perception of interior design elements and sense

People's perception of interior design elements and feel, is through the visual nature-related senses of smelling, hearing/of the person with the sense of smell of indoor boundary surface, color, lighting, furniture, display of perception. In the design practice through to the people's cognition and feeling satisfied, created many excellent interior design. Such as the mandarin Oriental hotel (Bangkok) of interior design, interior designers use looks simple line, pattern, color, lighting, furniture to create a "dream of the house" of the mind, in the "dream of the house" of the mind is contains the rich connotation of environmental psychology. Specific performance in the following four aspects:

The visual satisfaction. Mainly based on the indoor light (artificial light and natural light), color and modeling (shape) of processing. First look at the mandarin Oriental hotel (Bangkok) room for interior design in the biggest influence of the processing of artificial lighting, guest room of the primary side of the desk lamp of illumination and unconventional top lighting. That's because the room is mainly a place for guests sleep to rest, and when people sleep mainly USES is supine posture, lateral illumination method is effective to avoid the top lighting lighting to rest direct irradiation of the eye. Designers in the facade, ceiling and ground are used to produce diffuse material, avoid the harm to the human eye of specular reflection. The processing of natural light, with the method of the double layer curtain to regulate natural light to human visual impact: outside a layer with translucent fabric, suitable for don't need to use natural light of direct illuminate; Lining using has very good shading sex thick cotton and linen fabric, suitable for complete alienation of natural light. [4]

On the processing of color, the designer in the guest room on four facade used the light yellow imitation cotton wallpaper, ceiling with ivory porous paint, the ground USES a relatively deep yellow cotton carpet decorative pattern, used on the desk, the furniture such as beds, chairs a small area of the contrast (ochre) match. This kind of collocation makes whole space tonal change and unification on the basis of "warmth" feeling will pale yellow color of performance incisively and vividly.

Integral space and basic furniture of rectangular shape, has been adopted for the rectangle is most can let a person feel balanced comfortable on the vision of a shape. In spite of the guest room in local desk lamp and tea table, bedding compared with rectangular have a strong sense of circular, but due to the circular use area is small, will not let a space appear cluttered constraint, but rose to adorn action to the overall environment, make indoor environment modelling looks so vivid and comfort.
Above through processing indoor light, color and shape, and create a quiet and comfortable indoor environment, meet the requirement of the guest rooms, visual.
In addition, the Hong Kong famous interior designer Joseph hung on the indoor light, color and shape of processing is also very worthy of our learning. Its representative works include the peninsula pearl restaurant and kanazu curry house, etc.

Good acoustic environment. By controlling the sound source, control the transfer process of sound and noise. For interior design, to meet the requirements of the auditory mainly through different space to select different coefficient of sound insulation of decoration materials. Rooms due to their high activity coefficient of illicit close is strong, sound insulation requirements, elevation and ground the high absorption of wallpaper and the carpet of cotton and linen material to enhance absorption function, meet the passengers during sleep and rest rooms need quiet. Because the bathroom don't need to have the bedroom so high coefficient of acoustic, so on the choice of materials, mainly by the absorption effect is worse than cotton and linen material ceramic tile and wood.

The skin (touch) feel satisfied. Mainly through well-organized natural ventilation in interior design and choose the right touch of different surface materials. So the designer when designing SPA lounge will maximize the ensure the north-south all-transparent, make them form a cross ventilation to improve indoor air fresh. In the choice and the material we direct contact with the skin, also want to consider the needs of users.

Meet for the sense of smell. Mainly through the organization and good ventilation, indoor greening and reducing indoor smoke. So designers in order to improve the quality of indoor sense of smell, first of all, as far as possible the setting of natural ventilation, at the time of natural ventilation cannot be fully realized, is trying to cooperate with equipment set up artificial ventilation, also can choose according to the space requirements of indoor greening the number and variety of plants. In some sense of smell demanding
Indoor environment, such as hospitals, railway stations, shopping malls and other public indoor space, also can use text signs, such as "please don't smoke in the" to maintain indoor olfactory environment.

The person's psychology behavior patterns to the influence of the indoor space design

Environmental psychology tells us: the person's behavior also belongs to the category of psychology, there is a corresponding and common psychology and behavior, can make a similar reaction to the same environment. This is our guidance of environmental psychology in the foundation of modern interior design is its universality can be summarized as the following 6 points:

The field and interpersonal distance. Areas are animals in the environment as an adaptation to get food, breed survival behavior. As senior animals, but the people -- in language expression, rational thinking, decision-making and social aspects with ordinary animals will have substaintial distinction, indoor environment in the life of people, the production, entertainment and other activities, are always striving to be interference or obstruction of the activity. Different activities must have their physiological and psychological scope and field, people do not want to easily be interference by foreign things. Indoor environment, personal space is often required of the interpersonal communication distance TongPan consideration. Interpersonal contact according to different objects and different communication places, each have differences in the distance. In animals based on the research experience of environment and behavior, puts forward the concept of interpersonal distance. Depending on the degree of close relationship, to determine the behavior characteristics of interpersonal distance, can be divided into: close distance, personal distance, social distance and public distance. Each type of distance, according to the different behavior nature of people divided into near and distant facies. In close distance, for example, intimate, can smell and radiant heat to the other party feel as close to the phase; Shake hands with each other is far away. Of course, considering the people of different nationalities, religion, gender, degree of professional and cultural factors, interpersonal distance will also be different.

The privacy and the end. If the area lies in the space, the illicit close sex is more involved in the corresponding space range, including isolation requirements for the line of sight, sound, etc. The requirement of illicit close sex more prominent in the residence interior space. Such as collective dormitory first people to live in the dormitory, if allowed to choose their first beds, always willing to choose to do the bed in the room, it will in life and go to bed when there is relatively little disturbed; By comparing to a large number of residential model, we also found that the master bedroom is placed in a quiet corner; Table in the restaurant dining seats selected, usually the most reluctant to choose near the door or people frequently through the seats, so of them against the wall in the restaurant, because in the interior space form more "end", is more in line with the individual meal "end to" the psychological requirements.

Based on a sense of security. The people who live in the interior space, from the psychological feeling, is not necessarily the more open, the better, usually prefer to choose to "rely on" in large indoor space objects. For example in the railway station and subway station waiting area or on the platform, it is not more gathered in the place where the most easy to get on the bus, but willing to stay relatively scattered in the crowd inside hall, near the pillars of the platform, properly keep distance with flow channel. That's because people from psychological feel on the edge of the column is "relying on", more secure. [5]

The conformity and phototaxis. From some very accident found that occurs in the public places, emergency people often leading a few people running, follow the crowd blindly without considering the running direction is toward the safety evacuation, even when the fire alarm rang, smoke filled. People seldom pay attention to the content of the fire signs and text, even to this lack of trust, but intuitively followed the lead of a few people running, formed the flow of the entire population.

The above situation which belong to a herd mentality. At the same time, the population flow in the interior space, has a tendency to flow from the dark toward the bright place, emergency language guide will guide is better than words. In psychological and behavioral phenomenon prompts the designer to create public indoor environment, first of all to pay attention to the orientation of space, lighting, sound, marks and writing guide is important, but through the emergency of the psychological and behavior analysis, the design of space, lighting, audio elements in grasp more should give high attention.

Space in the shape of a psychological feeling. By each interface to surround close and into the interior space, the form feature often make activity in which people produce different psychological feeling. Mr Famous architect i. m. pei had to his work -- with oblique triangle Space Museum in Washington new house has a very good, he thought the triangle, consume more inclined to space can give a person with dynamic and full of change of the psychological feelings, as shown in figure 7. We will find that in real life circle will give the feeling of full spray up, square, let people have a sense of solemn and stable.

Shortcut effect. Shortcuts effect refers to the people through a space as far as possible when they take the most concise line, even if there are other factors influence. There are a lot of this kind of behavior in our life, such as from one side of the playground we go to the other side, usually in a straight line and won't go around the track, that is to say we're in the space layout, attention should be paid to control of the distance, should not be too long.

The psychological feeling of individual differences affect indoor whole style

"Opinionated, do not act in accordance with the law" after the incident, people began to pay much attention to the understanding of the differences between things, even the same kinds of things, also has the difference, no two objects in the world are the same, people's psychological feeling there is such a difference. In 1879, Wundt psychological laboratory in leipzig university, after a long time experiment, found that psychological behavior and sensory system has obvious individual differences.

Although environmental psychology from the overall analysis of human behavior and psychological commonalities, but also admitted that the individual differences, respect for the individual features. In the modern interior design such differences tend to determine the integral style of interior design. So we in the indoor environment design should fully consider the user's personality to the unique requirements of the environment, fully understand the user's individual behavior and psychological needs, in shaping the environment shall be fully respected. But in order to create a comfortable, pleasant, more suited to the environment of the residents, we should properly use of environmental psychology knowledge to correct people's behavior and psychological "guide", impact on one's personality, and even "restraint" to a certain extent. In the design, both must respect the individual differences, also should pay attention to environmental psychology influence on interior design, the two dialectical reasonable use.

The teaching of engineering graphics in descriptive geometry, the theoretical basis of the three view drawing as the main expressive means. Starting point, line and plane projection, to the study of geometry superposition, dig form and the three-dimensional cutting, plane projection reversal form complex three-dimensional space concept. Drawing standards its core purpose is to develop accurate 3 d space imagination and standardized view, drawing ability; Three view drawing and axonometric drawing is its core content of repeated interactions. The effect of forming in your mind quickly and standard three-dimensional imagination, and with AutoCAD drawing tool or means of computer aided accurately express the design intent; At the same time form a rigorous and normative logic thought. Engineering graphics recognition and its production of uncertainty is in the process of training must be strictly observed. The correctness of the graphics, can be used in the production of machining is the ultimate goal, under the size specification only has practical significance.

Art graphics on the basis of the sketch, color, combination of plane composition, color composition, three-dimensional construction, the theoretical basis of the dot, line, face and all sorts of color for elements, the research on the rules of the combination of graphics, change and unity as its core. Various elements is a means of emotion or intent and symbols. Designers through the basic skills of freehand drawing or plane computer-aided design software like Photoshop to express themselves on visual design change process; Exercise at the same time up to the standard of aesthetic imagination and creativity. Art graphics is outpouring of emotion, is to achieve the ultimate goal of the visual enjoyment, and size and drawing specification into bondage thinking factors here.

The teaching of engineering graphics in descriptive geometry, the theoretical basis of the three view drawing as the main expressive means. Starting point, line and plane projection, to the study of geometry superposition, dig form and the three-dimensional cutting, plane projection reversal form complex three-dimensional space concept. Drawing standards its core purpose is to develop accurate 3 d space imagination and standardized view, drawing ability; Three view drawing and axonometric drawing is its core content of repeated interactions. The effect of forming in your mind quickly and standard three-dimensional imagination, and with AutoCAD drawing tool or means of computer aided accurately express the design intent; At the same time form a rigorous and normative logic thought. Engineering graphics recognition and its production of uncertainty is in the process of training must be strictly observed. The correctness of the graphics, can be used in the production of machining is the ultimate goal, under the size specification only has practical significance.

On the teaching mode applied design talents as the goal of teaching mode, to cultivate the students' application ability is given priority to, emphasis on cultivating students' professional design ability, comprehensive design ability, innovation ability, to adapt to the social demand and the development of The Times. Interior design teaching should to train in the design of the first line which has an independent design capability and can be engaged in the specific design and management of the design personnel as foothold, at the same time also should strengthen the noble moral character, to the human society sense of responsibility, has the innovative spirit and ability, have the consciousness and ability of lifelong learning, etc. The cultivation of the overall comprehensive quality.

Conclusion

Above on the theory of environmental psychology is the modern interior design guide of China and thus put forward some of the interior design strategy, is himself in the process of teaching and practice some inspiration. In interior design in the development of our country, it is more in need of combines the actual conditions of the current society make the correct theoretical guidance. In today's society has been into the post-industrial era, people are concerned about the own existence is far more than ever, as designers training future educators, we should shoulder the responsibility, the history of the era have entrusted to our efforts to develop suitable for era demand of designers.

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Appendix 13:

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Research on Application of Digital Media Art in Modern Exhibition Design Based on Computer Information Technology

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Research on Application of Digital Media Art in Modern Exhibition Design Based on Computer Information Technology

Yang Cao[1,*]

[1]Dalian University of Science and Technology, Dalia, Liaoning, China, 116052

*Corresponding author e-mail: 3895601248@qq.com

Abstracts. Driven by the economic development of our country, the development of information technology is on the rise, and the derived digital media technology has also been popularized. As a product of the times, digital media art is in a vigorous stage of development. Digital media art is full of diversified development trend, which is deeply implemented and respected in the popular integration design. Under the derivation of information technology in this era, digital media technology of computer information technology began to be applied to display design, this gives the temporary design a more vivid and three-dimensional display.

Keywords: Digital Media Art, Modern Display Design, Application Research

1. Foreword

Driven by the development of the times, information technology has been gradually improved, and the raw digital media technology has also begun to be widely disseminated and used, and digital media technology can be widely applied and popularized. According to the development situation, the application display design of digital media technology is effectively integrated, with the integration of the two, resulting in a rich three-dimensional spatial design, in the innovation and reform, As a new industry technology, digital media has given the soul of display design, and many Chinese and enterprises have also seen the development prospect and economic benefit of digital media design[1]. Under the digital media technology with diversified applications, it is closely integrated with the display design of enterprises, and endows the life of a new information technology product under the background of the new era.

2. The rise of Digital Media Art

In the traditional mode, the pursuit of the soul of display design is the application of digital technology, when the computer technology gradually emerged and extended into the application of digital technology in varying degrees to the traditional design display provided a new vitality and soul. Under the effective application of computer science and technology, the new pursuit of digital media art has been carried out,

and the main core control of digital media art is mainly computer, and gradually applied in display design under the popularization. In addition, the application of digital media art has been applied in various fields under the development of state-owned economy, and finally, the fusion of display design can be divided into several categories (as shown in figure 1)[2].

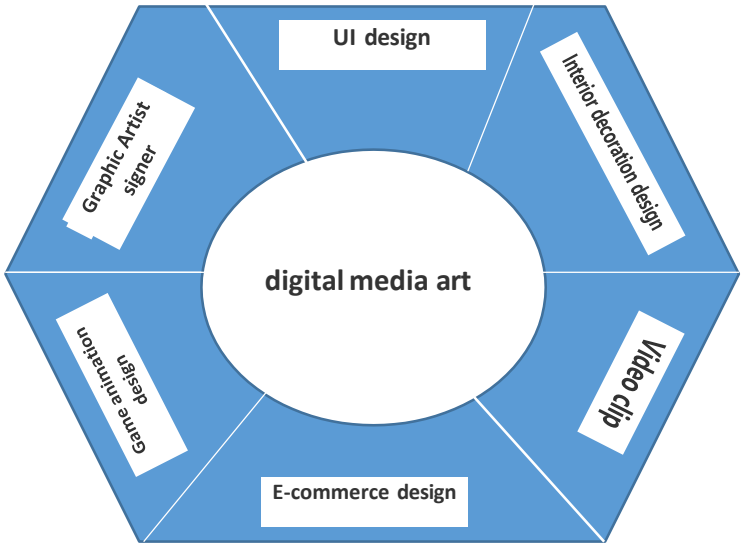

Figure 1. Scope of digital media art

This widely used process can not be separated from the driving force of scientific development. Through the extension of computer technology and digital media art, it can effectively complete the work and display benefits in various display designs. This kind of high-tech digital media art occupies a dominant position in the development of the times.

3. The Development State of Digital Media Art

3.1. The influence of artists' own quality

On the stage of the development of state-owned economy, information technology has taken a new height, but at the same time, with the high development of information technology, there are also many potential problems[3]. When some artists make use of digital media art technology, they only have a temporary interest and adopt a new process technology that is not in line with each other in order to reach the benefit. This situation is absolutely profitable, but for a remote view, while blindly obtaining benefits, These artists have also lost the original intention of the art troupe, and the result of paying attention to economic benefits has forgotten the dominant position of art development.

3.2. The work lacks inspiration.

The application of the network technology is universal, and in a certain degree, the use of the digital media art is the need of the artist to have a certain design inspiration in the whole construction, But the disadvantage of the powerful transmission of the network technology is that the design work of the artist is missing the serious artistic soul, the artist gradually loses the original design method under the driving of the advanced science and technology, the design inspiration is also gradually degenerated, and the design works have no aesthetic feeling and soul, In a certain degree, the artists have lost their own artistic

knowledge, lacking the original design spirit, but in this new era, the network technology of the new era only pursues the benefit result, these mentality also makes the digital media art lose the original art design value. The wide spread of digital media art has a certain limit to the artist, leading to the gradual phase-out of the artists' design[4].

4. Practical Application of Digital Media Art in display Design

4.1. Design and make dynamic Video

Under the development of high and new technology, the promotion and dissemination of contemporary digital media art can not be separated from the guidance of high and new technology. For the display design of art design works, it has the impact of visual beauty, which is based on the theoretical design concept[5]. Under the promotion of the effective development of digital media art, it can drive the development trend of China's economic and social system. In recent years, multimedia technology has been gradually popularized under the promotion of economy, and has been widely used and respected in display design. In the design subject, the dynamic video is designed and produced according to the different effects of the display design works, and the corresponding music is used to attract the interest of the public.

4.2. The change of artistic form

On the impact of people's visual feeling, there is a certain aesthetic choice for the outstanding design products in vision, and the three-dimensional art design application of digital media art combines perfectly with the exhibition technology at a high level of modern information technology, to a certain extent, to the deep consolidation and development of digital media art, and in the combination of the main train of thought of display design. The research and utilization of digital media art should pay more attention to the structural change of design form, and should not benefit quickly[6]. The aesthetic feeling and soul of design should be fully displayed in the way of art form, so that the popularization and dissemination of digital media art can be more popular in modern display design.

4.3. Change the traditional carrier mode

The digital media art has a certain period of application in different degrees, and in the field of different industries and exhibition design, a clear classification is made. Under the continuous reform of the state-owned economy system, the human economy and the science and technology level are gradually increasing, People's life work is inseparable from the digital media art, while the digital media art itself is the application function of the virtualization technology, but at the same time has a double-sided nature, which can promote the perfect presentation of the art under the good application of the stage and the classification. It also creates favourable conditions for the development process of digital media art.

The digital media art itself is virtual, but in practical application, the data pattern is stored in the computer equipment, and the computer technology with digital media art is extended and extended to a certain extent.

5. The Development Prospect of Digital Media Art in Modern display Design

As a new design mode, digital media art has been widely used in display design in recent years. This new form of digital media art is the product of the extension of science and technology. Because of the universality of network technology, this kind of digital media art modern display design has obtained good development space and utilization value, and to varying degrees, it is also the perfect integration of digital media art and display design. It can also be said that it is the three-dimensional display of virtual data. The structure and design space of digital media art are rich in diversified structure, so the pattern of modern display design can be applied in various industries and fields.

6. Conclusion

To sum up, this article mainly focuses on the in-depth research and discussion of computer information technology, digital media art and modern display design. In today's society is the development era of information technology. Under the background of this rapid development, innovative design and communication means are the topics that we need to pay attention to. Under the combination of digital media art and modern display technology innovation, It can be seen that the technical level of our country under the development of information technology, this kind of digital media art modernization design display is not only the technical promotion, but also provides the income benefit for the social and economic development of our country to varying degrees.

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Appendix 14:

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Research on the Design Ideas of Exhibition Design from the Perspective of Visual Beauty

Wang Qian
Academy of Arts, Xi'an Fanyi University, 710105

Keywords: Visual Beauty; Aesthetic Consciousness; Design Ideas; Functionality

Abstract: Exhibition design is typically nested in various fields, such as all kinds of museums, shopping malls and window display stands, etc. Besides, exhibition design covers different contents at many levels, including the planning and development of exhibits, the application of various spaces, etc. In other words, the design idea of exhibition design shall take into account the issue that how a variety of exhibition factors can fully reveal the characteristics of goods and the advantages of enterprises within certain time and space so as to achieve economic benefits or commercial interests. However, the diversiform development of modern society has impelled people to improve their spiritual needs and psychological demands for aesthetics and cultures during the process of consumption. The exhibition design therefore, tends to take the aesthetic experiences and aesthetic knowledge as the design idea and develop an integrated system design that combines functionality with aesthetics by creating certain degrees of visual beauty. This paper is composed of three parts: Firstly, give a short introduction on the development and dissemination of exhibition design; secondly, describe the influence of visual beauty on the design ideas of exhibition design; lastly, use examples to analyze the formal expression of exhibition design from the perspective of visual beauty. In short, the preference of exhibition design for visual beauty can not only promote the development of exhibition design, but is conducive to stimulating market economy and enhancing the aesthetic consciousness of the public.

Introduction

Exhibition design, as an artistic design with comprehensive nature, has gradually developed with the development of human society, economy and politics. Exhibition design has blended into many industries and derived abundant design languages. According to the commerciality of exhibition design, exhibition design requires the designers to use pluralistic art design languages to elaborately design and arrange the three-dimensional spaces or two-dimensional planes within the vested time and space so that the three-dimensional spaces or two-dimensional planes can break through the solidified spatial structure and establish a rational relation with the exhibits, which not only plays a helping role in the publicity of exhibits, but improves the viewers' sense of participation and achieves the communication purpose properly.

From the perspective of design scope, the aesthetic-creating practices of exhibition design shall be developed on the basis of and complemented by primary needs of human beings so as to promote a virtuous cycle of development. This is why the contemporary exhibition design is very keen on visual beauty. The exhibition design, as a kind of design within the design field, is inseparable from aesthetics. In addition, people generate constantly improving spiritual needs and become rigorous about the aesthetic perception after the satisfaction of material needs. Thus, the design ideas of exhibition design are increasingly correlated to the visual beauty.

Development and dissemination of exhibition design

From one point of view, exhibition design is an emerging industry among various industries and has a quite broad concept, such as the architectural design with certain scale and stability, the interior space design that focuses on spatial arrangement, or some temporary exhibition designs (such as arts and crafts).

Expositions sprang up at the end of the 19th century and the beginning of 20th century. The "shopping malls" or "stores" began to scale up and became more specialized and systematic after World War II, which laid a solid foundation for the development of exhibition design.

Nowadays, considering that the aesthetic consciousness of viewers has improved significantly and the exhibition design has made great progresses after integrating the superiorities of many fields, the exhibition design thus, is no longer provided with such a simple concept. Certainly, the rapid development of exhibition design benefits from the progresses of other fields, such as the construction industry. In addition, the design ideas of exhibition design are ever-changing due to the impacts of emerging arts. The ideas of modern exhibition design are mainly reflected in humanization and subjectification. In recent years, the psychological cognition of visitors has been analyzed and interpreted by sociologists and psychologists from different points of views. The application of these findings in the exhibition design is extremely obvious. The coalescence of science and technology is the primary approach to achieve both material display and spiritual communication of exhibition design in the information era. The psychological and physiological demands of viewers shall be met as far as possible so as to acquire benefit and efficiency.

The influence of visual beauty on the design ideas of exhibition design

In short, visual beauty, as a relatively broad concept, is the sense of joviality visually generated by one thing. The effect of visual beauty cannot be achieved without the coordination of many factors. The application of shapes, colors and materials may pose impacts on people's feeling about visual beauty. It is a complex problem that what kind of works or elements combination can achieve ideal visual beauty. A complete system shall be developed sometimes. Visual communication is nothing but a science.

Modern exhibition design appears more relaxing and enjoyable when compared with that in the past, which benefits from the fact that the designers are capable of combining the freedom of art with exquisite technologies in a proper way and expand the boundary of exhibition design from a cognitive perspective. Such idea has rooted in all walks of life, including some purely commercial fields, so does commercial exhibition, which laterally reflects the changes in aesthetic standards of viewers. Thus, the designers shall not only be proficient at various design tactics and implementation techniques, but be required to possess artistic accomplishments, to get hold of the market disciplines, as well as to properly mix all elements together. Only in this way, can the design works give expression to the features of the exhibition and generate certain degrees of visual beauty, which, in turn, meets the psychological needs of customers whose aesthetic standards is enhanced constantly.

The influence of visual beauty on the design ideas of exhibition design is mainly embodied at the following aspects:

Improve the diversity of materials

In general, the traditional exhibition design always takes into account the exhibition of exhibits in a simple and direct manner so as to achieve the economic benefits or other purposes. In view of the cognitions of most customers to be improved and the shortage of materials, the presentation styles of traditional exhibition design are quite boring and unitary. The final exhibition is short of certain visual beauty, which leads the designers to be hard to give full play to their ideas and innovations. In order to improve the visual beauty of design works, it is of great necessity to "play hard" with respect to the materials so that the innovative ideas and design thoughts cannot be impaired due to the limitations of materials, which to a large extent, will promote the generation and application of new materials and technologies, improve the reduction degree of designing schemes and shorten the effort and time consumed during the implementing process.

Promote the infiltration of art into public aesthetics consciousness

There is a relationship of action and retroaction between exhibition design and public aesthetics consciousness. With the development of economy, people may improve their aesthetics consciousness and become more meticulous about the pursuit of beauty, while the designers, as a social group that possesses higher degree of artistic accomplishment and gets hold of much aesthetic knowledge, is responsible for spreading the aesthetic concepts by virtue of the design works. The art may improve the aesthetic appreciation of people while gradually penetrating into public aesthetics consciousness via the channels of exhibition. The mutual promotion and virtuous circle produce positive impacts on art and public aesthetics consciousness.

Promote the vitality of design field

The exhibition design covers the forms of planes and the segmentation and combination of spaces. The pursuit of visual beauty has driven the exhibition design to develop in the comprehensive and general direction. For this reason, it is of great necessity to introduce other professions, which can not only enrich the creative language of exhibition design, but greatly fortify the vitality of design field.

Promote the exchange between exhibits and viewers

The affinity between goods and consumers is based on the capability of exhibition to restore the authenticity and reliability of exhibits, which requires the exhibition designers to take into account the coordination of exhibits and exhibition spaces during the process of actual design so as to fully reflect the advantages and characteristics of exhibits, to shorten the distance between exhibits and viewers and generate sense of closeness. Therefore, the pursuit of visual beauty in the process of design, to a large extent, can shorten the distance between exhibits and viewers. This is because we are all visual creatures and may produce general feelings about the visual beauty. When the environmental atmosphere of exhibition space produces sense of beauty and attractions, the consumers may be more active to learn about the product performance and enhance their trust and goodwill of the brand and the enterprise. Only in this way can the consumers take positive attitudes and accept the publicity information with ease.

Contents and forms of exhibition design from the perspective of visual beauty

People's demands for visual beauty originate from the needs to cast off common customs. Therefore, modern designers shall not only possess sound artistic accomplishments and specialized knowledge, but learn to extend the design ideas by utilizing modern scientific and technological means. The forms of exhibition design may refer to the architectural art, plastic art, environmental art and painting art that are closely related to exhibition design. For exhibition design, the designers shall take the overall layout as an entry point and perform creative conception and design in accordance with the inherent conditions of space, the core topics of display content and technical skills or other conditions so as to achieve the visual beauty. Therefore, the level of exhibition shall be designed properly and produce sense of beauty based on the performance of exhibits.

The composition of space is the foundation for the establishment of visual beauty. For example, the interface design within the indoor exhibition space shall integrate the complicacy with simplicity; for the function division of space, the sales area shall be combined with the leisure area so that consumers can relax a little bit after the fatigue shopping. Consumers can obtain the humanized warmth in the leisure area that is provided by the merchant and get a positive shopping experience. Color is also a primary factor of exhibition design, including the overall tone and local color relationship. When design the colors of an exhibition, the designers shall pay attention to the overall and local relationships of colors so that the local color cannot supersede or be covered by the overall tone, while the overall tone can provide the viewers with rich visual perceptions and motivate their interests. The exhibition designer shall take into account the color assortment between walls and floors within the exhibition area, the indoor lighting design, as well as the visual experiences, artistic atmospheres and psychological feelings that such color assortment can generate.

The rapid development of contemporary science and technology has greatly changed the artistic design in terms of concept and forms, and the exhibition design is no exception. With the advancement of science and technology across the world and the constantly upgrading types of art, the effect of exhibition has experienced a growing improvement. The artistic form based on science and technology allows the exhibition design to develop in a diversified and comprehensive way and also provides people with new visual beauty and interactive feelings.

What's more, material is a major factor of exhibition design from the perspective of visual beauty. Materials can determine people's psychological feelings about the tactile sense and consumer's positioning of quality. For example, the exhibition design of clothing may focus on the proper selection of weak-quality and strong-quality materials, including the visual effects of materials and the fashion degrees and trends of new materials. Proper material layout will fortify the depth and volume perceptions of space and make up the deficiencies of space.

Conclusion

The exhibition design has involved many areas of specialization. It possesses stronger market operability when compared with other design types. Due to the market demands, people pose higher requirements for the visual beauty of exhibition design, and the exhibition design therefore, is developing at various levels and complementary with public aesthetic consciousness, which has greatly stimulated the design field. The design ideas of exhibition design from the perspective of visual beauty cannot be performed without rich aesthetic knowledge, ever-changing market demands and the professional and artistic accomplishments of the designers. Only in this way can we produce more innovative and humanized design works. In addition, with the constant development and innovation of technology in the new era, our life is reshaped by technologies. People have appreciated the profound influences of computer technology, communication technology, network technology and multimedia technology. With the help of advanced technologies and approaches, designers have opportunities to expand horizons and alter their thinking methods. Therefore, the designers shall pay attention to the application of various information-based means and make innovations in terms of design concept, design language, design method, pattern of expression and appeal so as to promote the development and reform of design works.

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Appendix 15:

2018 International Conference on Education, Psychology, and Management Science (ICEPMS 2018)

Study on the Environmental Psychology and Modern Interior Design

Min Wang

Nanyang Institute of Technology, Nanyang, Henan, 473000

Keywords: Modern Interior Design, Environmental Psychology, Fashion Show

Abstract: As a comprehensive subject, modern interior design involves many aspects such as engineering, ecology and environmental psychology. Its design essence is to realize the comfort of people's living environment. Environmental psychology is an indispensable component of modern interior design work. The reason is that the starting point of interior design is the living environment of people. It is necessary to consider the comfort of people and design from the actual situation of individuals. Being able to master the relevant environmental psychology knowledge is difficult to have a relatively clear understanding of the person's psychological state, then the interior design will lose its practical significance.

Introduction

With the development of society and the improvement of people's living standards, people have put forward higher requirements in interior design. Modern interior design covers a wide range of disciplines, such as art, engineering, and environmental psychology. Therefore, modern interior design is a discipline formed by a combination of various disciplines. When conducting education and teaching activities in such subjects, the main purpose is usually to create a comfortable and harmonious living environment for users. At this time, it is necessary to play the role of environmental psychology to analyze and explore the changes in people's minds in different environments. Combine the scientific and artistic elements of environmental elements, and scientifically and rationally design the indoor environment to create a more satisfactory indoor environment for people. So how do you play the role of environmental psychology in modern interior design to ensure the safety and comfort of people's indoor environment? Therefore, the modern interior design and environmental psychology were studied, and the influence of environmental psychology on modern interior design was analyzed, and people's requirements for interior design were met as much as possible to improve people's quality of life and environment.

Environmental Psychology and Modern Interior Design Connotation

Environmental psychology refers to the use of people's psychological changes and other characteristics to improve their living environment, and strive to create an environment suitable for people's lives. When studying environmental psychology, it usually comes from two perspectives, namely environmental science and psychology. From a psychological point of view, its main role is to study people's cognitive ability to things, as well as psychological changes, personality characteristics, emotional attitudes, etc. After research, analysis and summary of people's inner needs, and then in the interior design In the process, we can create an indoor environment that meets people's requirements based on people's psychological characteristics. From the perspective of environmental science, people can make various changes in the surrounding environment. At the same time, the changed environment will also have a certain impact on people's emotional attitudes. The elements in the indoor environment are relatively standardized and have certain patterns. Different indoor environments will have different influences on people's emotions and other manufacturers. Therefore, when designing the indoor environment, it is necessary to consider the environment and the changes in people's minds. The relationship between interactions.

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Modern interior design means that the indoor elements can be reasonably matched and transformed

without affecting the safety performance of the house and other related requirements, and the artistic atmosphere of the interior can be reflected by other means to create a science for people. The practical, safe and beautiful indoor environment meets people's requirements for high quality of life. The modern interior design is mainly considered from the following aspects to ensure that the scientific and artistic aspects of these aspects can create an environment more suitable for people's lives and work. First of all, we must take into account the use of indoor space, make rational use of space, give full play to the spatial imagination, and provide more space for the design of indoor environment to create better visual effects. Next, we must design the interior decoration and use the appropriate decoration materials to fully reflect the superiority of the environment. For example, various colors of paint will make the interior design have different effects. Therefore, it should be based on people's pursuit of the indoor environment. More in line with the requirements of the house environment. Finally, it is necessary to take into account the placement of various objects in the house, which need to be reasonably designed to make full use of the space without making the interior look crowded. Learn more about the size and function of each object, and how much people need it. After analysis, arrange the position of each object to achieve the practicality and artistry of each object, and add more beautiful elements to the indoor environment. .

The problem of environmental psychology in modern interior design

Today, with the gradual development of society, China has paid more attention to the study of environmental psychology. However, because China's research on environmental psychology is still in an insufficient stage, its influence in modern interior design is small and cannot be fully exerted. Out of its essential function. In addition, with the gradual improvement of people's indoor environment requirements, modern interior design has also begun to turn to the development direction based on environmental psychology. However, under such conditions, people's requirements for living and working environment are not fully met. The reasons for this situation are mainly as follows: First, economic conditions are not allowed. People often want to make their indoor environment more suitable for their own needs, but the realization of this demand requires too much material conditions, so people can not pursue their own high quality indoor environment. Second, people's high demands on the indoor environment are often difficult to express in words, and it is impossible for interior designers to understand their needs for the indoor environment. This may result in the interior design effect being completely inconsistent with the user's requirements, resulting in unnecessary Loss. Third, due to the limitations of the interior design scheme, people are unable to exert a richer imagination, and the demand for a good indoor environment will be limited, resulting in a reduction in the effect on interior design and the inability to achieve internal recognition of the indoor environment. . From this point of view, in the process of interior design, various constraints make environmental psychology difficult to play a greater role, leading to modern interior design can not provide people with a more qualified living environment, seriously affecting people at work The emotional attitudes in life affect people's living standards.

People's psychological behavior in the environment

People have certain differences in language expression and rational thinking, which leads people not to be disturbed in activities. In different activities, people need different places. In the design of indoor environment, people must keep certain The space, but also according to different contact objects, in different occasions, the difference in distance. People in different environments, the psychological state will also change, people's psychology and the environment are still closely related, people hope that what they want not to be influenced by the environment, not to be disturbed by outside things, just The indoor environment is a relatively closed space, and people can create a distance between the indoor and the outside space so as not to be disturbed. Interior designers should fully consider this when designing, so that people and the environment must have a certain degree of intimacy, but also to maintain distance, so that people can feel the beauty of the space. For

example, when students choose a dorm bed, they usually choose the location of the corner instead of the location close to the door. It is because people's psychological factors determine that people do not want to be disturbed by the outside environment. In the process of rest, people are indoors. Therefore, from the perspective of environmental psychology, people are more likely to get a good rest indoors.

When designing interiors, it is not as broad as possible. People need a kind of support in the interior space to get a sense of security. For example, in the train station, people do not like to stay in the waiting room for a long time, but prefer to stay in the place where the crowd is scattered, and properly keep a distance from a large number of people.

When people are active in indoor space, they generally prefer to be in a bright place. People will drive from the dark to the bright place. Therefore, when designing the public environment, make sure that the light is bright and can be marked. illumination.

The design of the indoor environment is in line with people's psychological characteristics and behavior patterns. For example, for some modern large-scale shopping malls, the interior design must take into account customers. The customer's shopping has evolved from a single shopping to a shopping, leisure, excursion, service, and information. Therefore, this kind of change requires that customers should be as close as possible to the goods, so that they can choose and compare them. Therefore, the modern shopping mall interior design is arranged around the choice and the open frame, combined with amusement, teahouse, Child care and other facilities.

Psychological behavior patterns and cognitive environments provide some hints for interior space design. The sensory organ receives initial stimulation in the environment and the brain responds in the environment. Therefore, the perception of the environment is that the brain works with the sensory organs. After the combination of cognitive environment and psychological behavior, the designer does not simply design the basis from the human scale, use function, etc., has space, determines its shape and scale range, and then chooses the color tone and illumination.

In the interior design, the user's personality and the relationship with the environment should be fully considered. In general, environmental psychology can affirm that people have similar or even the same response to the relevant perceptions of the outside world, but should also fully consider the user's personality, behavior, and relationship with the environment. When shaping the environment, we must fully respect it. In addition, we can use the environment to “guide” some behaviors of people, and guide the impact on individuality, even to a certain extent. Designers must grasp reasonable scales when designing interiors.

Human psychology plays an important role in interior design. Moreover, interior design must be practical, have a certain use function, and must have perfect use functions while satisfying people's aesthetics, so that people can live comfortably indoors. In the process of interior design, not only must meet the material function of the design, but also meet the spiritual function of the design, to satisfy people's spiritual enjoyment, and use reasonable design to mobilize people's senses, so that people can feel at home indoors. work and life. When designing interiors, it must be in accordance with objective laws, not excessive exaggeration. In design, it should be within the acceptable range of people, and also according to the crowd to carry out interior design. For example, young people may prefer personalization. The design, however, the elderly prefer a comfortable life, try to design some traditional elements in the design process.

Conclusion

When designing interiors, we must take into account people's subjective feelings. Nowadays, people's living standards are getting higher and higher, people are pursuing spiritual enjoyment more and more, and their living comfort requirements are getting higher and higher. Indoor environment It is the focus of people's attention. Therefore, in interior design, environmental psychology should be fully utilized to analyze from the perspective of environment and human psychology, so that people can design styles that people can enjoy in a more comfortable environment. Life, and, when the room is relatively empty, you can put some furniture to make the room feel better, so that people can feel the warmth of home. Moreover, in the interior design, we must fully consider the aesthetic requirements of people of different ages, young people are more individualistic, while the elderly pursue traditional design.

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Appendix 16:

1st UPI International Conference on Sociology Education (UPI ICSE 2015)

Influence of Infographic on Exhibition Space Towards The Level of Interest, Understanding, and Visitors Behavior

(Case Study : Educational Exhibition on Implementation of Nuclear Power Plant Project)

B. Agusta
Faculty of Art and Design
Bandung Institute of Technology
Bandung, INDONESIA
boniagusta@ristekdikti.go.id

T. Y. Ramadin
Faculty of Art and Design Bandung Institute of Technology Bandung, INDONESIA
tendy_y_ramadin@fsrd.itb.ac.id

***Abstract*—Infographic as a form of modern information design is one of the various information media that is widely use in exhibition. The aim of this study is to conduct the influence of infographic as a visual display of information component in the exhibition space towards the visitor's level of interest, understanding, and behavior. One of many elements in infographic that directly related to the visitor's level of interest and understanding are the visual style. Visual style is a series of visual objects by virtue in logical complexity characteristics. This study used a direct experimental method which subjects are divided into specific age group based on visual literacy skills. By discussing an issue about the use of nuclear technology for energy in particular, this study is expected to answer the problem of dissemination of nuclear science and technology through the exhibitions event. Generally, this research is expected to be an instrument in meassuring the effectiveness of educational exhibition, and as a reference for designing infographic as a medium of visual communication design in exhibition space.**

Keywords—Educational Exhibition, Infographic, Visitor's Perception & Behavior

INTRODUCTION

The industry of tourism in 2012 is escalated by 5% and increase 6-7% in 2013, especially MICE (Meeting, Incentive, Conference, Exhibition). Exhibition industry contribute a significant numbers, around 30-40% in 2012, Pamerindo [31]. Exhibition become an important component in every aspects, not only for creative industry, but also for the society. Exhibition is a medium of communication and education, which is full of valuable information and economic value.

Based on purpose of the implementation, exhibition is divided in two types, exhibition for trading [commercial] and educational exhibition (non-commercial). Exhibition for trading focused on commerce activities. The indicators of effectiveness in this area are based on the sales achievement. While educational exhibition focused on the dissemination process.

As mentioned by Falk et al [8], the exhibition effectiveness meassured by four factors, area of the exhibition, number of participants, number of visitors, and sales achievement. But in general it is still refers to indicators of effectiveness for trading exhibition. Effectiveness of educational exhibition involve a human factors. Level of interest, understanding, and the behavior response of visitor to the various elements of the exhibition become an entities that can not be separated.

Smithsonian Accesibility Program [32] state that educational exhibition are closely related to human being as the main object. Educational exhibition has a various complexity of concept, data, and information, as well as the sensation that related to the visitor. All of these elements are summarized into an informational form that is easy to understand and fun. Therefore, the informational components become an important part in educational exhibition, as the main entity that have to be understood by the visitor.

The information components on exhibition has evolve from time to time. That various changes has change the audience's perspective of exhibition into something more than it was before, Hughes [11]. In the modern era, the function of information components are not only as object's label information, but also as a historical narrative that is able to present the story, as well as being aesthetically pleasing elements that embellish the exhibition space. Information components on exhibition space generally appear as an information visualization.

Information visualization method in various fields known as information design. Information design is able to answer the complexity and irregularity by transforming information into the form of valuable message, meaningful, and easy to understand. Information design interact with visitor through various forms of visual representation such as color, typography, grouping information, graphic element, imagery, and utilization of sound and movement instrument, Baer [5]

Along with the development of technology and trend in graphic design, there is a modern information design concept known as infographic. Infographics has been widely applied in various fields, such as advertising, marketing, business, social media, and education, Marabella [1]. Infographics also applied in exhibition industry, especially for educational exhibition as a visual tools to convey the information. Infographics are considered able to summarize the complexity of data into a

simple and structured form. It is easier for audience to capture the idea, Smiciklas [18].

Visual style is a series of visual objects by virtue in logical complexity characteristics. Selection of visual style determine how audience interpret the message, or otherwise confused them in a collection of tables and graphs, Pogorelova [2]. The duration from the audience to interpret infographics display depending on the complexity of visualization and visual literacy skills.

Previous study [3] concluded that there is a significant correlation between visual perception and visitor's behavior on digital simulation of window display. Positive visual perception creates a positive behavioral response as well, and vice versa.

Another study [23] proved that the information design component affects level of interest of the reader with learning style background such as visual, auditory, and kinesthetic. This study proves that the visual content is more desirable than narrative content, and infographics plays an important role as a visual appeal that creating a persuasive thought process.

Furthermore, the conclusion of research [4] stated that visual literacy by the people in a particular age group affects how these groups interpret a variety of visual elements on the infographic. Millenials [born in 1980 above] has a better level of interest and understanding than Generation X [born in 1964-1974], and Baby Boomer [born in 1943-1963].

To determine the role of infographics related to the level of interest and understanding, as well as behavioral responses of visitor in exhibition space, require a comprehensive issue. In this study, it is the use of nuclear technology for energy adapted as the main information content. The issue is selected based on its controversy and the lack of understanding about the value by the community. Moreover, visual literacy in Indonesian people associated with various objects nuclear technology became an obstacle in the process of designing visual aids to illustrate the various data and facts.

Based on the description above, this study conduct various reserach about the influence of infographics in exhibition space. The research focused on measuring the level of interest, understanding and behavioral responses of visitors. Certain age groups into demographic factors are calculated with the assumption that the visual literacy of each age group in society affect how these groups interpret a variety of visual elements in infographics, Young etal [4]. This study once said that the ideal form of indicators of the effectiveness of educational exhibitions.

I. Visual Style

Data visualization on learning activities will be captured quickly than presenting on a narrative form by the audience. It is because the human brain has the ability to process visual object faster than a verbal object, Lankow [14]. We have the ability to interpret a wide variety of visualization objects of an entity, such as graphs and symbols.

The problem is how long does the infographics interpreted by the auidences. Duration required to interpret the data visualization is largely dependent on the complexity and amount of detail. It is also influenced by the audiences ability to explore the entire point of the data and find out the relation. Entertaining graphic form with low complexity allows purport faster, while the form of graphics with the analytical type makes the audience take a little while to read.

In a study conducted by Pogorelova [2] there are two types of visual style that works as visual appeal in infographic, fast thinking visualization and slow thinking visualization. Both of visual style based on the complexity of form and information.

A. Fast Thinking Visualization

Fast-thinking visualizations contain a clear message that can often be summarized in a graphics' title and don't require the viewer to spend more than some seconds scanning it. Fast-thinking visualizations usually show a visible trend [unemployment rate is rising; sales are dropping down], providing little to no possibilities to learn more or explore the provided information further.

According to Kosara as cited by Pogorelova [2], They tend to be rather simple in appearance, mostly using common or highly intuitive graphic displays like bars, fever graphs or maps. Their short, clear message can also be rendered in a pictorial style like Nigel Holmes' – as a visual metaphor where images are woven into the presentation of the data.

B. Slow Thinking Visualization

Slow-thinking visualization demands more from its viewers. It can range from more sophisticated or unfamiliar ways of visualizing data to complex, highdensity displays of information that contain a plenty of details.

Slow-thinking visualization highlights most important, interesting or unusual points in an overall context, letting the viewer to explore the data. Besides, unusual visualization forms may attract much more attention than familiar, easy-toread but a tad boring bar or pie charts, Gelmanet al cited by Pogorelova [2].

However, slow-thinking visualizations, especially those using a novel graphic form, face a danger that they can be not intuitively understandable.

II. Visual Perception and Behavior

Stimulus - Organism - Response [SOR] paradigm by Mehrabian et al as cited by Widasati [3] stated that the response to environmental stimuli [S] can be treated as an approach or avoidance [R], with the experience of individuals in the environment [O] as a mediator. Individuals react to the environment in two behaviors: approach and avoidance. Behavioral approach include all the positive behavior directed

at a particular place, such as the desire to live, investigate, work, and to gather, whereas avoidance behaviors reflects the opposite of positive behavior.

The Process for the audiences are influenced by the sensation and itensity result. If the sensation was quite strong and has great appeal, object or stimulus can directly enter the mind of the audience through the various pathways (senses) - there is a response in the form of a change - like-dislike, agree-disagree, and so on.

OBJECT ANALYSIS

Science and publishing are two sectors that use information design as a communication instrument for centuries, Lankow [14]. Study and development in this field is dominated by academics and scientists, mostly to convey the theoretical information. Until the discovery of internet, infographics on science and publishing are growing along with the development of technology.

In 2007, the interest of infographics are increased. Audience individually begin to designing and distribute infographics by the internet. Since then, a new type of infographics appear in large numbers and carry a wide range of issues. Marketing is a popular field for infographic utilization. Infographics assures the quality of a product to prospective customers.

In this study the issue of nuclear technology used as a main research study. The selected issues converging on the utilization of nuclear technology for energy, especially nuclear power plants. Nuclear technology is considered as a negative things by the society. That perception of nuclear technology does not match with the facts.

METHOD

A quantitative method with experimental research design is used in this study. According to Sedamyanti et al [17], experimental research is a kind of research in order to find the impact of certain variable to another variable with tight control. Experimental research aims to examine the hypothesis, predicted event in the experimental background, and generalize the relationship between the variables, Zuriah [20].

Experiments aims to measure the level of interest and understanding of visitors towards visual style of infographic. Experiments involving observation, procedures, and data collection from respondents by questionnaires. At the final phase, quantification and data analysis conducted to examine hypothesis and get a conclusions.

Here is a flow chart in this study:

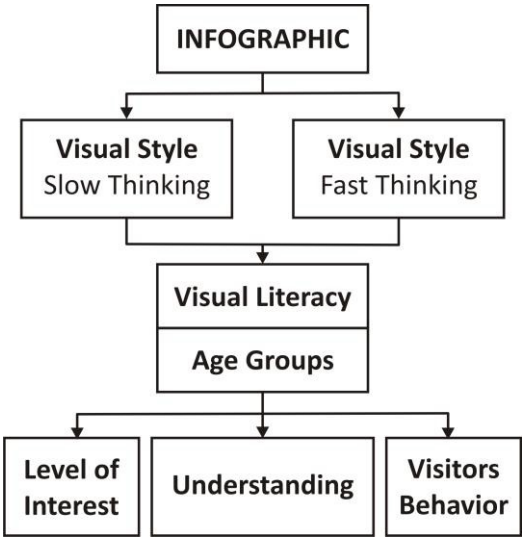

Image 1. Flow chart of the study

The subject in this study are public visitors from RITECH EXPO 2015 at the age of 20 years and above. Subject are visitors whom interested with the stimulus by themeselves. Furthermore, visitors are asked to join with the experiment, and fill out a questionnaire at the end of each part of the experiment.

The subject of the study consist of two [2] age groups, the early adult [21-30 years] and late adult [31 years and above]. The respondents assumed as an individual that has a psychologically stable, productive, actively interact, close to a variety of media, self-contained in making decision and up to date on social and environmental issues.

The number of respondents is 6 [six] people in every age group. This study use a purposive sampling technique, or sampling with a certain consideration. The number of samples taken from the average number of visitors from RITECH EXPO who visit the booth area of BATAN and interested to the stimulus.

Stimulus are based on the visual style. Visual style consists of two patterns, there are slow thinking visualization and fast thinking visualization. Both of them is distinguished by adaptation stylish from data visualization, based on the level of complexity of the forms and information.

The information content on stimulus are the points issue of nuclear technology for energy problems in Indonesia, that summarized as nuclear paradigm ala Moore and research data from BATAN. Stimulus aims to present data and facts related to the use of nuclear technology for energy. By utilizing the style of visualization, data and facts presented in a balanced, and relevant to the negative information in society.

Controlled variable is an infographic panel made from polyform placed in the exhibition booth area of RITECH

EXPO 2015. RITECH EXPO is an annual technology exhibition organized by the Ministry of Research Technology and Higher Education.

The main topic of RITECH EXPO 2015 is food, energy, and maritime, held on 8-11 August 2015 in Lapangan D Senayan, Jakarta. Followed by 124 participants from various backgrounds. Experimental activities in this study conducted in the energy zones of BATAN (National Nuclear Energy Agency).

The exhibition booth design took a concept of island booth in the area of 54 m2. Inside the bbooth area there are 6 [six] research institution consisting of BATAN, BPPT, BIG, BSN, LIPI, and Eijkman Institute. Booth material used a plywood for the walls and floor, stickers as a finishing material lining the walls, and as a finishing material layer HPL flooring (flooring). Lighting using halogen lamp and a spotlight at some point.

Infographic panel on the experiment are 90 cm long and 50 cm wide. Infographic printed with digital printing and placed on polyform media with the same size. Infographic panel then placed in the booth area.

Experimental activities consist of two independent variables were based on the visual style of infographics. The viusal style that used on the stimulus is slow thinking visualization (S1), and fast thinking visualization (S2). Infographics components used in these variables include, visual [color, graphics, icons], the content [text / narrative, statistical data, the time span, reference], knowledge [facts and conclusions].

The independent variable for the level of interest measured by three indicators, level of preference, level of boredom, and level of brightness. While the independent variables for understanding measured by three indicators, ease of recall, relevance, and ease understandable.

In the experiment, respondents did a direct observation of two (2) kind of infographics placed in the exhibition space. This phase is divided into two (2) times the observation activities.

A. 1st Observation

Done by observing alternately of infographics display begin from slow thinking visualization (S1), followed by fast thinking visualization (S2). At the end of each observation, subjects were required to fill out questionnaires.

B. 2nd Observation

Done by observing alternately of infographics display begin from fast thinking visualization (S2), followed by slow thinking visualization (S1). At the end of each observation, subjects were required to fill out questionnaires.

Subjects were not given a time limit when do an observations. There are no organizers or other visitors, observations were independently. Assessment of questionnaire using a Likert scale [1-4].

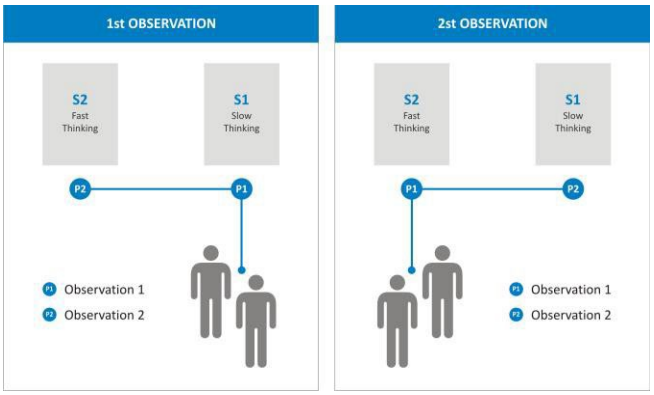

Image 2. Obsertvation Step

This research uses descriptive quantitative analysis methods. Data analysis was conducted by classifying variable data based on group that has been determined, and then interpreted as a conclusion of the study.

Data obtained from observation and questionnaires that given on experiment activities. Data processing is done by comparing the value of means (average) of the variables, and ANOVA statistical test to determine the significance of the research results. The results are presented descriptively in the form of charts and diagrams

Responder is measured using a Likert scale (1-4). Likert scale calculation used to get the conclusions using scale analysis. This analysis is used to determine the scale of dependent variable from the experiment. Range analysis is an indicator of high and low values in accordance with the answer given value.

The main constraints of this study is the target number of respondents were not achieved, because the low number of visitors on the exhibition in general. because the target number of respondents were not reached, it affects the age groupings of research subjects. From these data, there is new hupothesis that certain of age groups has a low level of interest to educational exhibition, but to prove it needs to do further research.

III. Result and Discussion

Based on the experimental results, obtained a comparison of the level of interest from two age groups to both types of stimuli :

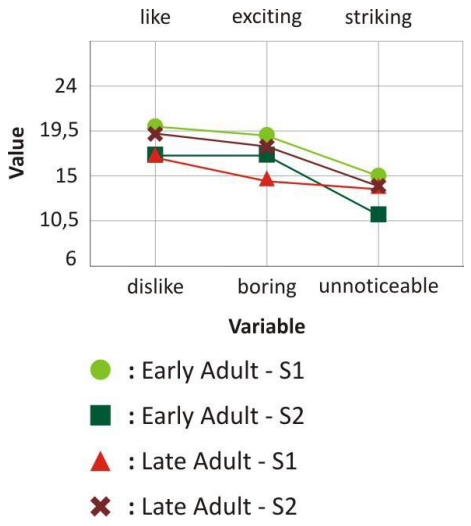

Image 3. Comparison of the level of interest in the age group

Description :
a. 6 to 10.5: Strongly Unattractive
• 10.5 to 15: Unattractive
b. 15 to 19.5: Attractive
c. 19.5 to 24: Very Attractive

Based on image 4, the conclusions are :

1.Stimuli 1 (S1) of infographic with slow thinking visualization has the highest value of interest for early adult group.

2.Stimuli 2 (S2) of infographic with fast thinking visualization has the highest value of interest for late adult group.

Based on the experimental results, obtained a comparison of the level of understanding from two age groups for both types of stimuli :

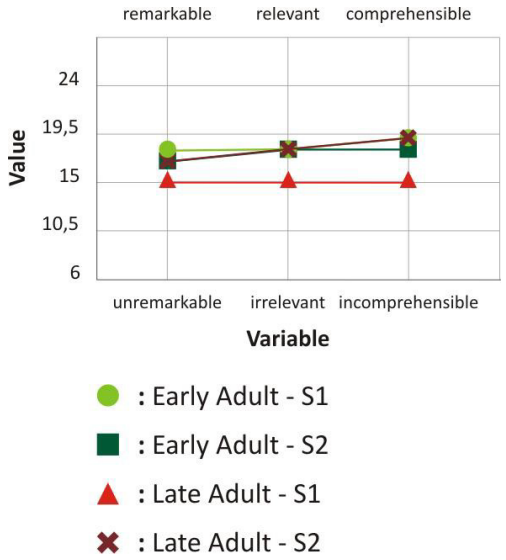

Image 4. Comparison of the level of understanding in the age group

Description :
a. 6 to 10.5: Strongly Unattractive
b. 10.5 to 15: Unattractive
c. 15 to 19.5: Attractive
d. 19.5 to 24: Very Attractive

Based on image 4, the conclusions are :

1. Stimuli 1 (S1) of infographic with slow thinking visualization has the highest value of understanding for early adult group.
2. Stimuli 2 (S2) of infographic with fast thinking visualization has the highest value of understanding for late adult group.

To determine the significancy of how visual style influence the behavior response of age group, statistical tests are performed using Pearson Test Correlation with normality test on variables before. Below is a table 1 shows the normality test results from two variables:

TABLE 1. NORMALITY TEST

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Visual Perception	,262	12	,022	,911	12	,221
Behavior Responses	,154	12	,200*	,954	12	,702

From the table above normality test obtained value of Sig. Kolmogorov-Smirnov with the number 0.22. With the value of Sig. > 0.05 correlation test to determine the significance of the relationship between two variables is feasible. Below is a table 2, show the Pearson correlation between the two variables:

TABLE 2. COLLERATION TEST

		Behavior Responses	Visual Perception
Behavior Responses	Pearson Correlation	1	,676*
	Sig. (2-tailed)		,016
	N	12	12
Visual Perception	Pearson Correlation	,676*	1
	Sig. (2-tailed)	,016	
	N	12	12

In the table 2 Pearson correlation values obtained Sig. 0.16, in other words the value of Sig. > 0.05. It can be concluded that there is a significant correlation between the two variables. Sign correlation coefficient worth [+], it means that if the variable X is high then Y is also high.

By the three hypotheses, the conclusion is that visual style has an impact in the level of visitor's interest, understanding, and behavior. Appropriate visual style raises a positive value from the level of interest, understanding, and behavioral responses. Three variables related to one another, with changes in value are directly proportional.

Associated with the object of the study, the issue the utilization of nuclear technology for energy proved to bring significant influence to the third form of variables. Impression respondents appear different to each stimulus. Therefore the visual style can be used in exhibition for dissemination with a specific target audience.

IV. CONCLUSION

Visual styles affect the visual perception of visitors by age group. Further note that the visual style with slow thinking visualization have a significant effect compared with a fast thinking visualization. This is because of slow thinking visualization requires the respondent to focus more in response to the complexity of the visualization. In other words, the visual literacy of each age group affects how these groups interpret this complexity. This conclusion reinforces previous research [23].

Visual style affect the visitor behavioral responses by age group. It shows by the behavioral response that is proportional to the value of visual perception. So the theory proposed by Mehrabian et al as cited by Widasati [3] through the paradigm of Stimulus-Organism-Respone (SOR) support this conclu- sion. Positive behavioral responses appear when environment is fun or interesting to the organism, and vice versa.

Internal factors that directly affect the visual perception of the visitor attraction including physiological factors, attention and interest, while the internal factors that affect the visual perception visitor understanding of factors including unidirectional needs, experiences and memories. Mood and physiological as internal factors of visual perception has influence visitor behavior response. In the experimental activities, there are several respondents who were not able to complete the phase of the experiment due to the emergence of physiological disorders that impact the mood.

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