

KIDS EDUTAINMENT CENTER

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Abstract

This study examines the Saudi's community concern of education through entertainment among the young generation. It also features on recognizing a project that would raise the awareness of importance edutainment centers. "Kids Edutainment Center" represents one of the important projects that would contribute to upgrade the level of kids' early education away from the regular teaching by linking education into entertainment. This study covered some case studies. The proposed project is divided into four main zones namely public activity area, play role area, learning area and sport center that is provide a place to communicate and get fun to kids as a main users and their families as secondary user. The selected site is located in North of Jeddah along Al-Corniche Road based on the site evaluation criteria such as accessibility, view and surrounding, future development, urban goals, safety and topography. Kids edutainment center is a place where children get fun and enjoy playing in a way that develop their growth by offering multiple kids play areas, while combining this with educational opportunities. It's going to be a focal point in Jeddah where parents can take their children to meet all their resolves and needs in order to spend pleasant and useful times.

Keywords--Early Education, Entertainment, Kids, Edutainment Center

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INTRODUCTION

One of the Jeddah problems is the absence of learning-entertainment places for kids, and communication places for them [1, 2]. Kids are composing large proportion of the city residents. Their productive and creative potential is a key for developing strategies, liveable and sustainable projects. Nowadays, kids of Saudi Arabia are growing up in a period of amazing expansion of economy and increase labour market expectations [3, 4]. The lack of places for learning and entertainment causes children to spend a lot of time using modern technology, especially social networking sites and mobile phone text messages, which affects the formation of basic human interaction skills. Without maintain any physical activities and social actions kids will have a negative reflection of the way our society is heading [5]. There is a direct connection with the amount of time spent with gadgets and obesity, poor grades, impatience, violence, and a loss of family interest which lead to a negative growing up. Therefore, providing Jeddah with an edutainment kid's center will be a pleasure to care about our kids, explore their talents and educate them through unique and high quality environment. Education through entertainment delivers inspiring educational messages to children and families through fun, exciting and memorable activities. The main focus of entertainment education is to attract primary and secondary school students by creating a dynamic and interactive entertainment environment.

CASE STUDIES

The case studies covered four case studies that have a unique concepts, constructions, and designs. The reason of choosing case studies from different regions is to understand in details of each project. The chosen case studies are:

- Massar Children's Discovery Centre, Damascus, Syria
- KidZania, Dubai, United Emirates
- Comic and Animation Museum, Hangzhou, China
- Shanghai Natural History Museum, Shanghai, China

Massar Children's Discovery Centre, Damascus, Syria

The Massar Children's Discovery Center was designed by Henning Larsen Architects in Damascus, Syria. The Discovery

Center finds inspiration from unique damask roses. The proposal proposes a shell structure that allows light to enter the internal space, presenting an interesting and dazzling scene, like light filtering between rose petals (Figure 1). The Massar Child Discovery Center will be the core of the Syrian educational program Massar. The center will provide activities through science-based practical experience to empower young Syrians to make a positive contribution to building their own future. The park is envisioned as a green public park for everyone, especially a family destination for leisure and walks in the dense Damascus city. [6].

The 16.000 square meter building includes exhibition, library and educational and administrative spaces. The center will become the main integrated attraction in the sites with a new 170,000 square meter public space. The space of the gallery, the mobility and openness of the visitors all express and support the ideal of the connection between people and dialogue.

The exhibition and administrative area are arranged between rose petals, inspired by an internal labyrinth tour inspired by a stroll through the ancient city of Damascus, which consists of skylights. The public, education and support rooms are located on the second floor and form a platform that rises from the old riverbed of the life-giving Barada River [6].

KidZania, Dubai, United Emirates

KidZania is located in Dubai Mall, the world's largest shopping mall, on the second floor of the famous downtown Dubai. The project is partnership with Emaar Retail LLC. Indoor theme parks are cities built for children, including buildings, paved streets, vehicles, economic activities, and identifiable destinations in the form of "venues" sponsored and branded by leading multinational companies and local brands (Figure 2).

It is a child-sized replica of the real size. The city is full of streets, buildings, retail stores and vehicles, all of which are reduced to the size of children. It involves role playing and encourages children to play various roles [7].

Comic and Animation Museum, Hangzhou, China

For a long time, manga and animation have been regarded as a form of entertainment for the younger generation, but they have increasingly developed into a complex art form. In particular, the museum initiative aimed at this relatively new art form has created a platform that combines art with the entertainment world. By using "speech balloons", which is one of the main features of cartoons, the building will immediately be seen as a place for cartoons, comics and animations. The neutral speech balloon becomes 3d. The museum will become the new focus of the minority population south of the Qiantang River (Figure 3). CCAM will consolidate the city's leading position as the capital of China's animation industry [8].

It covers an area of 30.000 square meters and is divided into eight volumes. These volumes are connected to each other, and user can cycle through the entire program. Services such as halls, education, three theaters / cinemas (1111 seats in total) and comic libraries each occupy their own balloons. If the two balloons are in contact internally, the larger opening will allow access and view the view between the volumes. The balloon shape can be used for various exhibitions, permanent collections are displayed spirally in chronological order, and the temporary exhibition hall has great flexibility. One of the balloons is used for interactive experience. Visitors can actively try various animation techniques, such as blue screen, freeze, painting, and creating emotions. The core attraction of this space is genetic 3D zoetrope. The museum's route allows short-term or long-term visits, visits to movie theaters, temporary exhibitions or rooftop terrace restaurants [8, 9].

Shanghai Natural History Museum, Shanghai, China

This project of the Shanghai Museum of Natural History is consistent with Chinese garden design. It is close to the spirit of nature, but it does not imitate the spirit of nature. Through its relationship with the site, it represents the harmony between man and nature, and is an abstraction of the basic elements of Chinese art and design. The museum is adjacent to the City Sculpture Park. The shape and architectural organization are inspired by the nautilus shell, which is the purest geometric form found in nature. A spiralling landscaped plane rises out of the park recalling the harmonious forms and proportions of the nautilus shell (Figure 4) [10, 11]. The plane was parked on a rooftop platform, with views of the park and surrounding city. On this spiral plane, there is an elliptical yard with a stepped garden composed of rocks and water features, reminiscent of the tradition of "mountain water garden". The courtyard is used as a positioning device that rotates down to the underground exhibition area [11].



Figure 2. Interior perspective of Dubai KidZania [7]



Figure 3. Comic and Animation Museum, Hangzhou, China [9]



Figure 1. Massar Children's Discovery Centre, Damascus, Syria [6]



Figure 4. Shanghai Natural History Museum, Shanghai, China [11]

SPACE PROGRAM

Kids Edutainment Center is divided into several zones. Starting with the public activity, it is a zone where family and their children come and start their journey; also it is an entry point for the project. This zone will include different activities that focus mainly on families as a main user. Families can wait for their children at public activity zone and do some activities while

waiting. The second area is the character area, the game area, and the game learning area. It is an indoor theme park, a city tailored for children, equipped with buildings, paved streets, vehicles, and economic operation. According to the concept of entertainment "education and entertainment", designing these activities is both fun and educational. It aims to teach children the values and rules of citizens to help them live in society in a healthy way. The third area is the learning center, which is the area or activities in the whole plan. It enables children to manipulate materials through the artistic medium, explore ideas, discover consequences, build, create and express themselves. The learning center gives children the opportunity to make decisions and choose study time. This zone will focus on learning as a main goal it will contain a library, atrium and different types of class room. Fourth zone is the sport zone. Sports center is a general-purpose space intended to cater for a great variety of activities. It is an area where children can do different indoor and outdoor sports activities. So, this project will provide a complete environment for children and satisfy all their needs. Table 1 tabulates the overall space program of the project includes the zones of play and learn area, sport center, amenities, botanic garden and teens area.

Table 1. Space program

Zones	Use Percent age (%)	Gross Area (m ²)	Net Area (64% from the Gross Area) (m ²)	Number Floors (m ²)	Foot Print (m ²)
Play and learn area	55	20225	12944	3	4314
Sport Center	13	4640	2969.9	3	990
Amenities	17	6138	3928	5	1964
Botanic Garden	5	1850	1184	1	1184
Teens area	10	3630	2323	3	774
Total	100	36483	23348.9		9226

Besides that, there are several design considerations such as the design should be proper for kids scale and usage. The design should provide privacy for the building. In addition, safety is the most important applied feature. Also, the design should provide a comfortable environment to users.

SITE SELECTION AND ANALYSIS

Kids edutainment center is a landmark suggested to be located at Jeddah. The project aims to provide a zone within Jeddah to satisfy all kid's needs. The project combines two main sectors which is education and entertainment. Thus, the site should be well selected to provide a comfortable environment for both purposes .The project is a new trend to be in Jeddah. Therefore, the project's site must offer an attraction point, comfortable and safe environment for kids and their families. Figure 5, Figure 6, Figure 7 and Figure 8 demonstrate the proposed sites.

The site evaluation is based on the criteria of accessibility, view and surrounding, future development, urban goals, safety and topography. The site should be surrounded by main roads in order to be easy to reach, also multiple access roads to avoid traffic jam. The site should have a natural view or a pleasant view and surrounded by landmarks. The site should be sufficient to accommodate the initial project and reflect the size of the project with a variety of facilities, also capable to support any future expansion. The site is preferred to be located at center of urban zone where a population is high. The site should be in area away from pollution including air pollution noise and land pollution;

also it should be supported by a city infra-structure. Regarding the site topography, the site should not be having required contour lines. The site evaluation result is shown in Table 2.

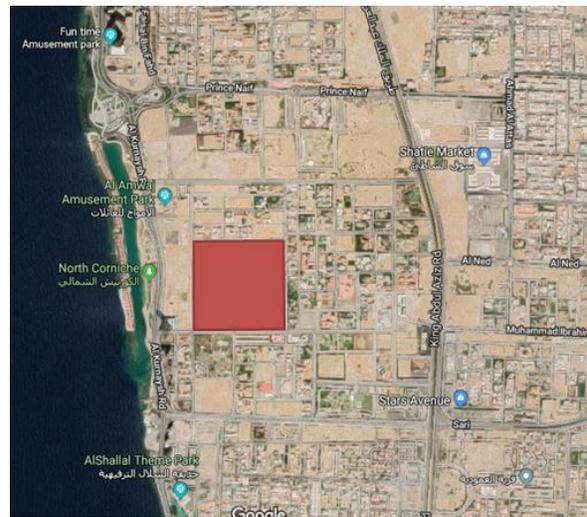


Figure 5. Site 1 [12]

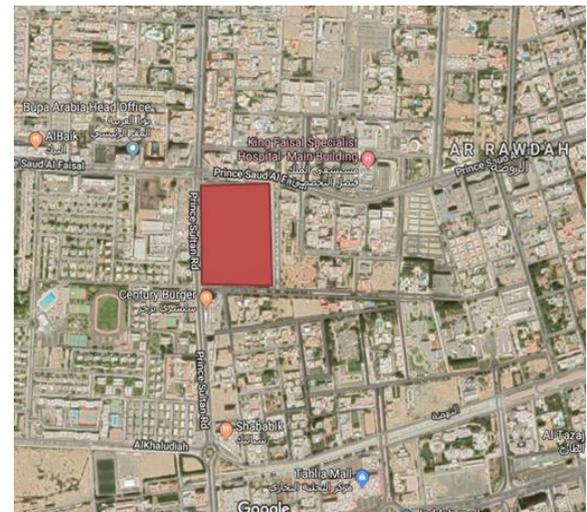


Figure 6. Site 2 [13]



Figure 7. Site 3 [14]



Figure 8. Site 4 [15]

Table 2. Site Evaluation

No.	Criteria	Weightage (%)	Site	Site	Site	Site	
			1	2	3	4	
1A	Main roads	10	10	10	8	10	
1B	Multiple access	15	10	15	10	15	
2A	Natural or pleasant Views	10	5	3	3	5	
2B	Surrounded by landmarks	10	10	8	10	10	
3A	Accommodate the initial project	10	10	8	10	9	
3B	Future expansion	15	11	9	15	14	
4A	Vibrant place of the city	10	10	10	10	10	
5A	Away from pollution	10	8	9	9	9	
5B	Supported by a city infrastructure	5	5	5	5	5	
6A	Topography	5	10	10	10	10	
Total			100	89	87	90	97

Based on the site evaluation result shown in Table 2, the selected site is site 4, which is located in North of Jeddah along Al-Corniche Road and at Prince Fahad Bin Faisal Street; it is adjacent to Helton Hotel. The location is a main spot in Jeddah that grab people’s attention from many different backgrounds, such as the inhabitant of Jeddah and its visitors. The site main road is Al-Corniche road over lock the sea shore, it goes along all of west of Jeddah. Naturally, the site overlooks Red Sea shore, which is the most important natural aspect in Jeddah. The site accessibility is shown in Figure 9.

Currently, Jeddah is growing to north, the population is increasing and the edutainment centers should be provided there. The selected area has a major focused on the developed luxuriant facilities such as hotels, entertainment facilities and Towers. Multiple land marks are located at the site that is considered as a major developed zone of Jeddah.

Humidity is high for most of the year in Jeddah, very hot in summer and usually cold in winter. Unlike other Saudi Arabian cities, Jeddah maintains warm temperatures in winter, and its temperature range may range from + 15 °C at midnight to + 25 °C in the afternoon. The temperature in summer is considered very

hot, breaking the + 40 °C mark in the afternoon and dropping to + 30 °C at night. Usually, there is little rainfall in Jeddah in December. Unusual events often occur throughout the year, such as summer sandstorms, deserts in the Arabian Peninsula or North Africa. It will not snow in Jeddah, but it will sleet in January. The site climate analysis is shown in Figure 10.



Figure 9. Site accessibility

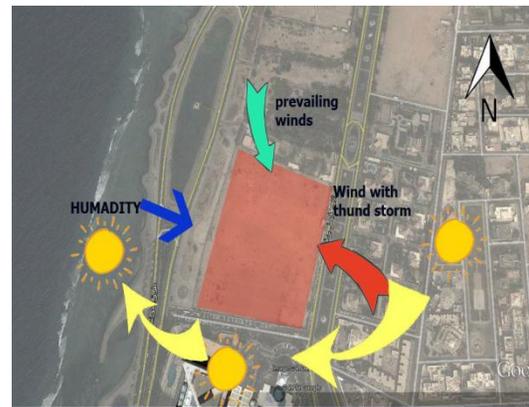


Figure 10. Site climate analysis

ZONING AND PROJECT DESIGN

Figure 11 and Figure 12 demonstrate the site zoning diagram and the site plan of the project. Kids edutainment center is a project designed to provide both playing and learning in an interactive way for kids. The network of the project enables users to communicate with each other’s visually and physically. The layout of the edutainment center allows visitors to take a spectacular journey of discovery, through and between buildings each building element covers a specific topic. Figure 13, Figure 14 and Figure 15 demonstrate the bawling hall, science hall and art hall of the project. The main perspective of the project is shown in Figure 16.



Figure 11. Site final zoning



Figure 12. Site plan



Figure 16. Main perspective of the project



Figure 13. Bowling hall



Figure 14. Science hall



Figure 15. Art hall

CONCLUSION

The project will lead to major growth in kids facilities fields in Saudi Arabia. It is also a local focal edutainment point in the city, which adds value to the area. The project is a representation of the developed vision of Kids facilities. The project is designed for several zones such as play and learns area, sport center, amenities, botanic garden and teen's area. The site is selected based on the evaluation criteria of accessibility, view and surrounding, future development, urban goals, safety and topography. The selected site is located in North of Jeddah along Al-Corniche Road and at Prince Fahad Bin Faisal Street. This project will support Jeddah to become a developed City which is one of the important cities in Saudi Arabia.

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