Article

Exploring Guardians' Perceptions towards Edutainment Environments: The Case of Kidzania, Cairo, Egypt

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Abstract: Over the last few decades, the concept of combining education and entertainment has become increasingly popular. Edutainment (education and entertainment) environments started appearing in 1970 and have expanded, ever since, across the globe. This study seeks to explore the perception of guardians towards the edutainment experience and its impact on their children, with special reference to Kidzania's branch in Cairo, Egypt. The study adopted an interpretive qualitative approach that combines different data gathering methods, including informal discussions, in-depth semi-structured interviews, on-site sketches, observation, field notes, photographs, and archival sources. The number of guardians involved in the study was 12, accompanying 23 children. A thematic analysis of the data revealed two important overarching themes: qualities of the edutainment environment, and the factors affecting the interaction between guardians and children. The first theme, qualities of the edutainment environment, includes three categories: safe environment, exploratory environment, and well-maintained environment. The second theme, factors affecting the interaction between guardians and children, encompasses three categories: physical proximity, visual connectivity, and provision of basic amenities. The findings of the study were discussed in light of relevant previous accounts and studies. In its conclusion, the study confirms that such edutainment environments can be considered as significant informal educational play settings in which children learn valuable life skills, complementing those learned in formal learning environments. Such findings are expected to provide useful insights that could inform different initiatives aiming to create thriving edutainment centers and engaging informal learning environments.

Keywords: informal learning environments; edutainment environments; guardians; children's interactive cities; Kidzania

1. Introduction

Play is believed to have a significant role in a child's physical, mental, emotional, and social growth [1–5]. In addition to their manifest importance for health and wellness, physical exercises improve brain functioning and cognitive processes, enabling children to gain knowledge and experience through play [5–7]. Accordingly, well-designed play environments are quite influential in the early years of child development. Previous studies emphasized their significant role in developing children's problem-solving skills and boosting their social interaction capacities [8–14]. Influenced by parents' great concern over safe play activity, indoor play environments are nowadays spreading quickly and their scale keeps enlarging [15]. Children today spend less time outdoors than any other generations [16,17]. Furthermore, parents seem to generally prefer inside play, rather than outside [1,18]. Such a shift in play environments has driven academics and researchers to start exploring the influence of different play setting on adults' perception [6].

Despite a growing interest, research on this topic is still nascent. The majority of studies involving play have been associated with either children's behavioral patterns [3,19–21], or

design guidelines that have been proclaimed by many architects, designers, and educators for outdoor play environments [21–27]. Some studies, for instance, demonstrate different characteristics of indoor and outdoor play environments, and recommend that such settings have a complementary role in the development and education of children's play [2]. In addition, parents' perceptions about different indoor play environments still need further investigation. Mckendrick et al. note that commercial play environments are designed not only to meet the needs of children, but also those of parents [28]. Other studies document that the ideal playground design is perceived differently between children and adults. They show that children's options for active free play are limited due to parental concerns about safety [11,29,30]. Moreover, according to Ferré et al. [31], while parents focus on their children's safety and opportunities of learning new skills, designers are believed to mainly care about design and image. On the other hand, children desire adventurous and risky play, which provokes feelings of challenge, excitement, pride, enjoyment, and achievement [32,33].

Despite the global spread of informal learning environments, particularly edutainment environments, and their positive impact on children's development, few publications have investigated their design model or addressed parents' perceptions towards such environments. The majority of studies focus on the business models and economic success factors [34,35]. Furthermore, very little research has addressed this phenomenon in the Egyptian context.

In that sense, this study seeks to explore the perception of guardians towards the edutainment experience and its impact on their children, with special reference to Kidzania's branch in Cairo, Egypt. The findings of the study are expected to provide useful insights, based on guardians 'perceptions, which could inform different initiatives aiming to create thriving edutainment centers and engaging informal learning environments.

2. The Phenomenon of Edutainment Environments: Overview and Background

Over the past few decades, the notion of combining education and entertainment has been increasingly popular. "Learning through play" and "edutainment" have become popular terms that refer to integrating learning and amusement, noting that learning through play occurs spontaneously when children are free to follow their interests and shape their own experiences [36,37].

The term edutainment, an amalgam between education and entertainment, was coined by Walt Disney in 1954 [38]. Seeking to support education through entertainment, edutainment environments started appearing globally in 1970 [35,39]. They provide a play environment where children accomplish activities that bring together both learning and the pleasure of curiosity [35,40,41]. According to Sala [38], edutainment environments seek to educate and entertain children by increasing their excitement and enthusiasm through informal educational playgrounds that are informative, flexible, and non-instructional.

By the end of the 20th century, a new sector of the edutainment environments started gaining momentum, which are interactive cities for children [35,42]. One of the fastest globally rising brands of such edutainment projects is Kidzania [43]. It is also considered the most well-known educational interactive city today [35,44,45]. Designed for kids up to 14 years old, Kidzania was first founded in Mexico in 1999 by Luis Javier Larguesgoiti and Xavier López Ancona [45]. It then opened branches in Jakarta, Koshien, Lisbon, Dubai, Seoul, Kuala Lumpur, and in Cairo in 2013, reaching 20 parks in 17 different countries [45,46].

Adopting an interpretive qualitative approach, this study aims to explore the phenomenon of edutainment environments, with special reference to interactive cities for children in Egypt. More specifically, the study focuses on exploring the perception of guardians towards the edutainment experience in Kidzania's branch in Cairo.

3. Methodology

3.1. Research Design

A qualitative research strategy is particularly useful when it comes to exploring someone's perceptions of a situation as it permits the researchers to understand his/her behavior [47,48]. Despite all the differences within the qualitative domain, the various ways of conducting qualitative research are characterized by an interpretive nature [49,50]. Accordingly, an interpretative qualitative approach was adopted in this study to explore the edutainment experience from the perspective of the guardians visiting Kidzania's branch in Cairo. Multiple methods were employed to collect data, as suggested by Barratt et al. to allow for data triangulation [51].

The study relied primarily on semi-structured interviews with 12 parents and guardians accompanying 23 children to Kidzania in Cairo, to generate a comprehensive understanding of the guardians' inner experiences and to provide important information that cannot be uncovered through observation alone. Moreover, semi-structured interviews allow for probing more deeply into the topic under discussion [52–55]. In addition to the semi-structured interviews, field notes and archival sources were used [56,57]. The research also involved physical field documentation recorded with photographs and on-site sketches [58].
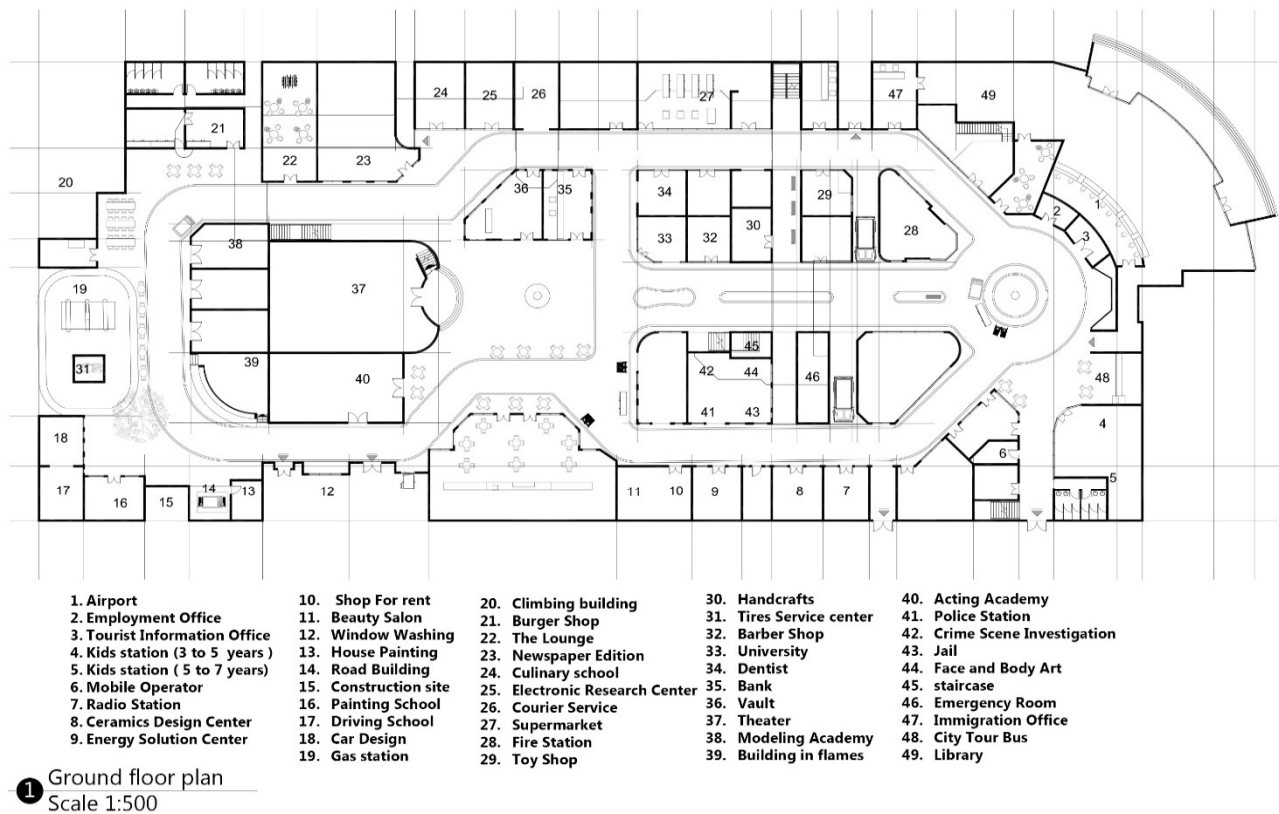
3.2. Description of the Selected Setting

This study was conducted in Kidzania, Cairo, which is the first edutainment environment for children in Egypt [59]. This branch of the global Kidzania brand opened in 2013 [44,45], as a stand-alone facility across an area of over 8000 m^2 [60]. It is located in Cairo Festival City Mall (CFCM), which is confined from the north by an important security landmark, the Police Academy, and it is surrounded by the first settlement housing plots from the east. CFCM is bounded with two main roads: the Ring Road on the western side and 90 Road on the southern side (Figure 1).
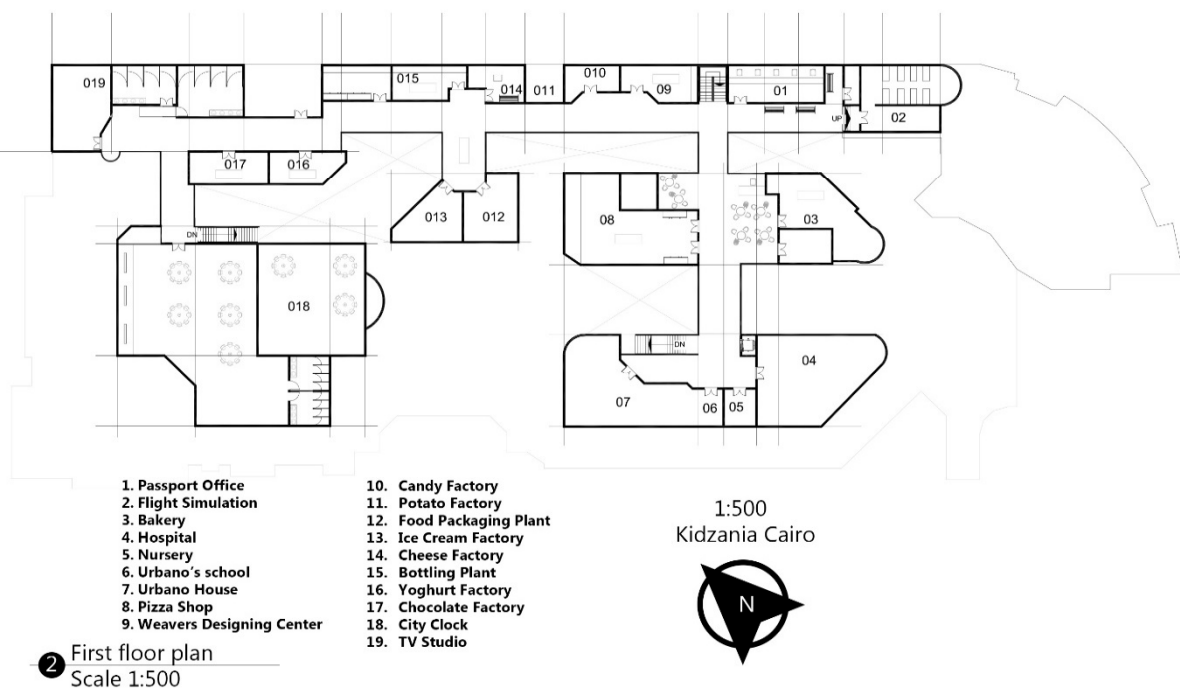

Figure 1. The context of Kidzania's branch in Cairo Festival city Mall in Egypt. Source(s): Based on Google Maps (2022).

Kidzania is a two-story building with multiple stations. The architectural plans of the edutainment environment are shown in Figure 2.

Figure 2. Plans of Kidzania Cairo branch in Egypt. Source(s): Authors (2022).

It is an ultra-realistic, kid-sized replica of a city, constructed indoors, and incorporating real-world well-known brands, such as Coca-Cola, Chipsy, CIB, and Egypt Air. Circulation elements inside Kidzania are mainly linear; however, it is subdivided by several nodes and atria which provide vertical connectivity between the different levels. The inner nodes are used to provide entertaining features for the users, and act as magnets to attract users from one node to the other.

Activities in Kidzania are designed to offer knowledge and experience of everyday life [35]. It provides different opportunities for children to play a doctor or a firefighter, create a TV show, and much more. The duration spent in each activity is around 25 min. Through their participation in the activities, children gain confidence and are more involved in teamwork, as well as learning to express themselves.

3.3. Data Collection

The study was conducted between June 2021 and January 2022. Initially, a physical inspection of the site was carried out to identify the different spaces of Kidzania. Multiple site visits were conducted to document the selected site and to become acquainted with the whole experience in the setting. Accordingly, an interview script was developed, followed by semi-structured face-to-face interviews that aimed to explore and understand the experience of parents and guardians visiting Kidzania.

Seeking to encourage a smooth discussion and avoid a rigidly structured track, open-ended questions were adopted to encourage interaction and flexibility, thus ensuring the collection of meaningful data about the experience and expectations of the participants. The script acted as a guide, and the order of the questions changed depending on participants' responses. It included questions about the underlying factors affecting the participants' choice to visit Kidzania, questions about the skills that the child developed by visiting such edutainment environment, and questions about the interaction between parents and children at Kidzania.

Each interview lasted approximately 15 to 20 min and they all occurred in Kidzania. Participants accepted to have the interview recorded using a smartphone but asked to keep moving according to their children's location, in order not to lose the play time spent in Kidzania. A total of four visits were made to Kidzania, each lasting between four to six hours to collect the responses. Interviews were conducted in Arabic, and verbatim responses to each question were translated to English.

3.4. Participants

Since this study is exploratory in nature, a non-probabilistic purposive sampling approach was adopted. Generally, non-probabilistic sampling methods are often used in qualitative field-oriented research, which aims to explore a specific phenomenon rather than being concerned with statistical generalizability [61–63]. All the participants involved in this study were homogenous in the sense that they were all guardians accompanying the children during their visit to Kidzania's branch in Cairo.

The 12 participants involved in the study were 10 mothers, 1 father, and 1 aunt, accompanying 23 children. Their children's ages ranged from below 3 years old to 13 years old. First, it should be noted that most of the guardians who were present at Kidzania during the multiple site visits conducted were female guardians. Second, no new themes emerged after the tenth interview; therefore, it was assumed that the data collection had reached a saturation point [61,64]. Data saturation is an important principle used in qualitative research, in order to determine data adequacy for providing a thorough understanding of the phenomenon under investigation [65,66]. Two more interviews were added to guarantee and confirm that there were no new emerging themes, making up a total of twelve participants in this study.

This is quite aligned with the findings of Guest et al., declaring that "If the goal is to describe a shared perception, belief or behavior among a relatively homogenous group, then a sample of twelve will be likely sufficient, as it was in our study" [61] (p. 76).

Table 1 below presents the demographic characteristics and the basic information of the involved participants, in terms of their age, gender, relationship to children, and the location of the interview.

Table 1. The basic information of the involved participants.

Participant	Participant Age			Gender	Relationship	No. of kids	Kids' age								Visit No.	Location of Interview
	<30	30–40	>40				<3	4	5	6	7	8	9	10+		
P-1		*		Female	Mother	1						1			3	In front of Coca-Cola.
P-2		*		Female	Aunt	2	1				1				1	In front of the dentist and we moved to Spinneys.
P-3			*	Female	Mother	2					1			1	3+	She was sitting on a bench away from her kids and she did not move for more than 1 hour.
P-4			*	Female	Mother	3				1				2	3+	In front of Coca-Cola and we moved with her kids, and we stopped at Egypt Air.
P-5		*		Female	Mother	2			1			1			3+	Sitting on a bench in front of Egypt Air.
P-6			*	Female	Mother	2			1				1		2	She was watching her kids playing in the fire station through a window.
P-7			*	Female	Mother	2					2				3	Sitting in front of the burger station waiting for her girls and her husband.
P-8		*		Female	Mother	2	1				1				2	Sitting on a bench in the tunnel right next to the police station.
P-9	*			Male	Father	2	1			1					2	Standing in front of Fit & Fix.
P-10	*			Female	Mother	1		1							1	Standing in front of the painting zone.
P-11		*		Female	Mother	2	1				1				2	Sitting on a bench next to sugar rush.
P-12		*		Female	Mother	2			1						1	In front of the hospital and we moved to Chipsy.

3.5. Data Analysis Procedures

The data were first prepared and organized, then coding and categorization was conducted [67]. All the audio recordings of the semi-structured interviews were translated and then transcribed. These transcripts were read and played multiple times to obtain a sense of the whole and accordingly capture the common repetitive ideas and themes. A coding process took place, where a list of codes was identified.

This coding process adopted a conventional content analysis approach to derive preliminary codes by first highlighting the keywords that tend to capture the main recurring ideas and concepts. Such an approach in qualitative content analysis helps researchers to immerse themselves in the data, which in turn allows for new insights to emerge [68]. A comprehensive database, using Microsoft Excel, was created to facilitate the coding and analysis process. Each group of codes was grouped under a common category. Upper-level relationships between the main categories assisted in the extraction of several themes that characterize the edutainment environment from the guardians' perspective. Figure 3 summarizes the different stages of the data analysis process.

Furthermore, observational data and field notes were used to complement and support the data obtained from the interviews.
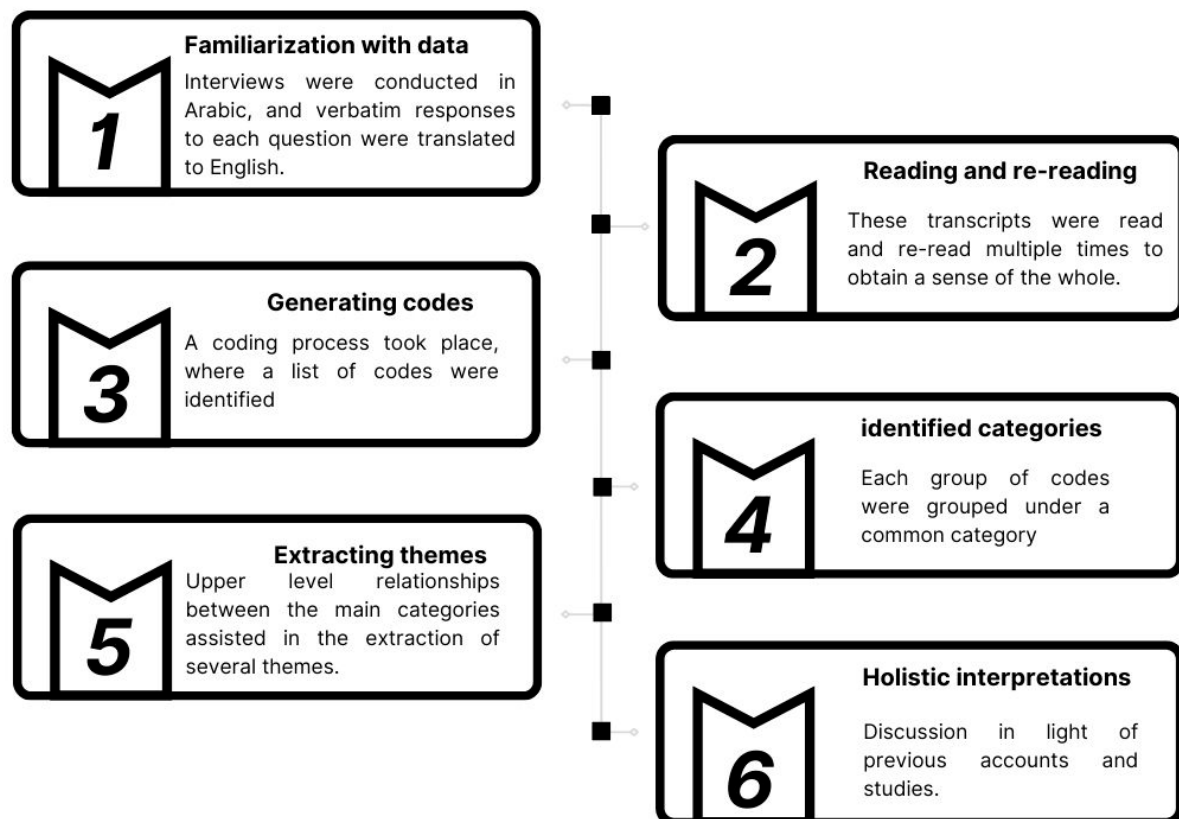
Familiarization with data
Interviews were conducted in Arabic, and verbatim responses to each question were translated to English.

1

Reading and re-reading
These transcripts were read and re-read multiple times to obtain a sense of the whole.

2

Generating codes
A coding process took place, where a list of codes were identified

3

identified categories
Each group of codes were grouped under a common category

4

Extracting themes
Upper level relationships between the main categories assisted in the extraction of several themes.

5

Holistic interpretations
Discussion in light of previous accounts and studies.

6

Figure 3. The different stages of the data analysis process. Source(s): Authors (2022).

4. Results and Discussion

The qualitative analysis revealed two main themes: qualities of the edutainment environment, and factors affecting the interaction between guardians and children. Under each theme, there were multiple categories that reflected a variety of ideas within the primary theme. The first theme "qualities of edutainment environment" includes three categories: safe environment, exploratory environment, and well-maintained environment. The second theme "factors affecting the interaction between guardians and children" encompasses three categories: physical proximity, visual connectivity, and provision of

basic amenities. Table 2 shows the verbatim responses and their identified codes associated with the relevant main categories, leading to the two extracted themes.

Below is a discussion of each theme with respect to relevant literature and previous accounts. Extracted verbatim quotations from the interviewees' responses along with observational data are used to support the findings of the study.

Table 2. The identified codes, the associated main categories, and the extracted themes.

Verbatim Responses		Code	Category	Theme
• Closed Space		Confined Space	Safe Environment	
• Controlled Exit	• Cannot Get Out	Access Control		
• Around Others • Empty • Crowded	• Alone • In Group	Density		
• Good Lighting • Day Light	• More Lighting • Sun Rays	Lighting		
• Enjoy • Enthusiastic	• Have Fun • Good Time	Cheerful Ambience	Exploratory Environment	Qualities of the Edutainment Environment
• Money Management	• Time Management	Responsibility		
• Listen Carefully to the Instructor. • Follow Instructor's Commands.	• Respect Turns in Queue • Team Player	Interaction		
• Freely Chosen Activities		Freedom of Choice		
• Independent • Less Worried	• Brave • Confident	Adults Detachment		
• COVID Precaution • Ventilation	• Clean	Hygiene	Well-Maintained Environment.	
• Slip-Resistance • Door Gap		Injury Prevention		
• Stay With • Move Around With • Nearby • Come Back	• To be Around • Following • Leave • Away	Nearness and Closeness	Physical Proximity	Factors Affecting Interaction Between Guardians and Children
• Watch • See	• Keep an Eye on • See	Monitoring	Visual Connectivity	
• Waved • Thumb Up	• Gestures	Communication		
• Seating Area	• Parent Lounge	Furnishing	Provision of Basic Amenities	
• Burger • Pizza	• Coffee	Food and Beverages		

4.1. The Attributes Influencing the Quality of Edutainment Environments

The first theme extracted, based on the interviews, is the "qualities of edutainment environments", which refers to the characteristics of the edutainment environment that impact the guardian's experience in it. Studies show that play environments are frequently designed to maintain a balance between offering opportunities for children to play, while satisfying parents' concerns over their children's safety when monitoring their activities [10,11]. This first theme, uncovered from the responses of the participants, includes three categories: safe, exploratory, and well-maintained environment.

1. Safe Environment:

One of the most important attributes related to the quality of the edutainment environment, as shared by the study's participants, is safety. This finding is in line with earlier

studies, demonstrating that parental concerns over the child's safety is one of the main reasons why parents limit their child's ability to move around independently [5,10,29,30]. Participants highlighted three safety-related elements: confinement, low density, and good lighting. Several participants noted that the confined space at Kidzania allows them to feel secure, repeatedly mentioning the safety merits of "closed spaces". Participant (P-1) explained, "The place is safe. The whole building is closed, so she [my daughter] cannot go out alone, and even if she tries, there is security at the gates who won't allow anyone to go out easily". Other participants (P-9, P-4, and P-3) shared similar insights, reiterating that the confined space and limited entrances reassure them about their children's safety.

Another safety attribute that several guardians referred to has to do with the "low density of the environment", noting that they prefer their children to be around others but in a somehow empty place. For instance, Participant (P-8) shared that although she likes her child to be surrounded by other people, she wants to always be able to see her without being overwhelmed by a big crowd. Similarly, Participant (P-5) said, "As long as it [the playground] is not crowded, safety increases". That said, many guardians still stated that they would feel safer leaving their children with friends, rather than being alone, especially at younger ages. Participant (P-2) asserted that she would not leave her daughter alone without her friends around her. Another guardian (P-3) added, "I have been coming here for more than 3 years. I started to leave my elder daughter when she was 6 or 7, either alone or with her friend".

The third safety attribute identified is related to illumination or lighting, which is a design requirement that is known to allow people to circulate safely, and is identified to be a useful safety measure [69]. Participants in this study were not very satisfied with the lighting at Kidzania. For instance, Participant (P-8) said, "I think if the lighting was a little higher, it would have been better. Other than that, the place is very nice". Similarly, Participant (P-10) noted that the place gives a "sense of nighttime", which she does not prefer because her daughter is afraid of the dark.

Generally, guardians considered Kidzania a safe place, which is a significant requirement in any edutainment environment. This is quite consistent with the findings of Graus et al., declaring that "The edutainment center's goal is to introduce children into adulthood by allowing them to role-play and try themselves at making independent decisions in a safe environment" [35] (p. 145).

2. Exploratory Environment:

The second attribute of a quality edutainment environment, as shared by the study's participants, is the exploratory nature that gives children a sense of life as an adult, teaches them valuable skills, and helps develop their personalities, all while playing together. This affirms the findings of previous studies that accentuate the importance of the exploratory nature as a characteristic feature of rich edutainment experiences. For instance, Yum notes that edutainment design offers potentials concerning distinct experiences, free-choice learning, and updatable content [70].

Participants largely appreciated the exploratory nature of Kidzania's environment, stating several advantages for the children's personal and social development, in addition to their cognitive skills.

One advantage is that the environment and process help the children learn decision-making and independence. Many of participants indicated that Kidzania is a replica of the real world, where their kids feel responsible for themselves and their own decisions. They stated that they let their children play freely without interfering in any of their choices. For example, Participant (P-3), who was sitting on a bench away from the children, noted that she liked to let her children play freely and feel independent while at Kidzania. Participant (P-11) also shared this idea that freedom and independence is what she liked the most about Kidzania, whereas Participant (P-12) described Kidzania as her child's "personal space", noting that she wants her to feel independent in order to "increase her self-confidence".

Most of the participants stated that they were not involved in any of their children's activities and that they were not even allowed to interfere. Participant (P-8) said that

interfering would disturb the supervisors working in Kidzania and that this may waste play time for the children. However, such emphasis on independence is not appreciated by all parents. One participant (P-10) said that she needed to support her daughter, but she was prevented from doing so by the staff: "I wanted to help her many times because she needed support. I tried to enter but they stopped me, but I believe that she needed me", she said.

Another advantage of Kidzania, as shared by the guardians, is that it teaches children basic money management skills. Parents shared that they let their children be in charge of their money and let them manage their own time in Kidzania. Participant (P-2) liked the idea that the kids are taking responsibility for themselves and gaining money management skills. Similarly, Participant (P-5) mentioned that the experience "helped him [her child] learn to manage his time and money". These findings are in line with the results of previous studies, which noted that skills learned in Kidzania, such as money management skills, have the same value as those learned in school [34,35,71].

In addition to the virtues of independence and money management, parents were happy that their kids learned useful everyday skills, such as listening carefully to instructions and socially engaging with others. Participant (P-9) noted that listening to the instructors and staff is important for her young children to know what they are going to do in every activity. Another guardian (P-4) mentioned that the instructors use words that can be easily understood by kids, which she greatly appreciates. She explained, "It is important because as age varies in each game, young kids need to be talked to in a special way, so that they get the information in an interesting way that suits their age". The environment at Kidzania also allows children to engage with each other and learn social skills. One mother (P-7) stated that activities in Kidzania improved how her shy daughter got along with others, as they encouraged her to learn how to deal with other kids.

The above findings confirm the value of edutainment environments in introducing kids to real life, and gradually to the social and work environment that they will have to face some years later [35]. In Kidzania, children explore and interact freely, which increases their ability to make decisions and to get involved in the community.

3.   Well-Maintained Environment:

The third attribute of a quality edutainment environment, as expressed by the participants, is maintenance. In this regard, the participants had different opinions about Kidzania. Sanitation and hygiene were two major issues raised by all participants, particularly during the COVID-19 pandemic. For example, Participant (P-1) stated that she liked Kidzania's COVID-19 precautions, and how they use sanitizers all the time and before each activity. She suggested, however, that "more sun may help reduce the spread of COVID-19 inside the place".

Another participant (P-11) also noted, "The instructors take good care of the kids. They insist on using sanitizers and take good care of health precautions concerning distances". However, she also suggested that "the place needed to be better ventilated". Participant (P-1) raised the same issue, stating, "This place is not well ventilated. I cannot see any clear ventilation. The air conditioning system here does not help change and circulate the air inside Kidzania".

Maintenance also extends to architectural details. The participants referred to some details which protect children from experiencing any pain, discomfort, or injuries in Kidzania. One participant (P-10) noted that the design of Kidzania is child-friendly, underlining the importance of the finger guard gap that prevents door injuries. She explained, "The place is really safe and there is nothing to worry about. For example, I am impressed with the design of the door in every station. If you look closely, the doors won't close on any kid's finger as they are designed in a way that helps avoid any injuries". Another Participant (P-9) also mentioned that the coated interlock saved his son from having a very bad wound on his knee one time (Figure 4).
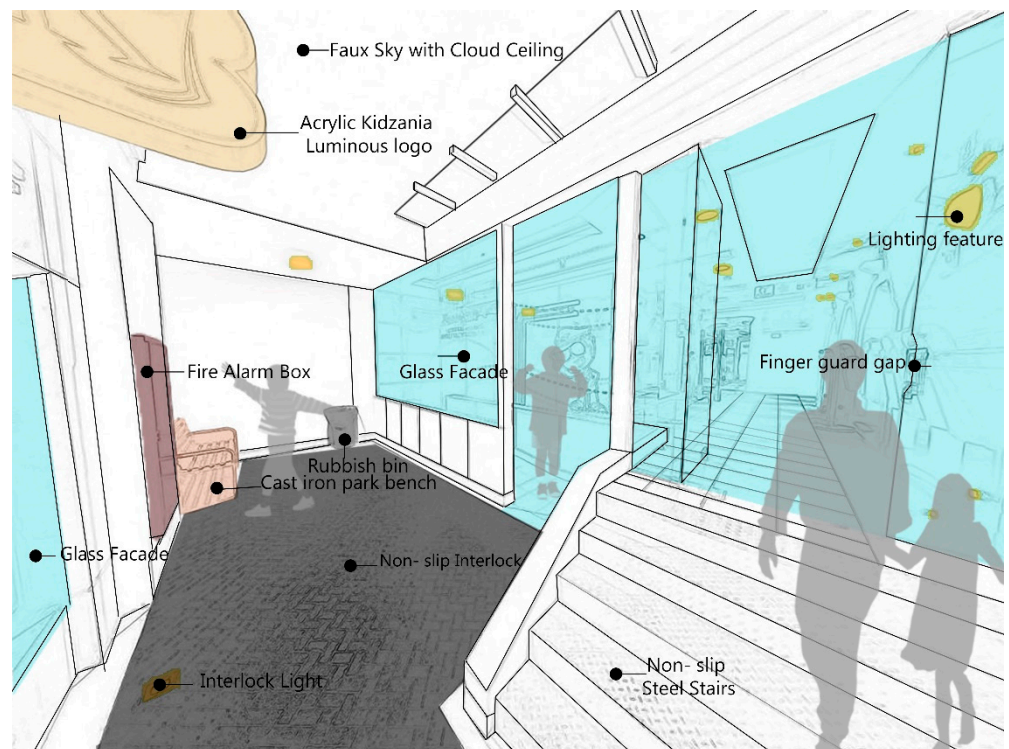
Figure 4. Some architectural details preventing children's injuries in Kidzania. Source(s): Authors (2022).

4.2. The Factors Affecting the Interaction between Guardians and Children

The second theme extracted, based on the interviews, was "factors affecting the interaction between guardians and children", which can be defined as anything that facilitates or assists guardians' communication with and observation of their kids in the edutainment environment.

1. Physical Proximity:

The first factor facilitating the children–guardian interaction, as revealed by the participants, is physical proximity, which enables parents to stay close to their children. This finding is in accordance with Gehl's work, in which he suggested that objects and humans are visible and distinguishable at a short distance without any physical barrier, which correspondingly facilitates interaction [72].

Despite their keenness on encouraging their children's independence, many participants noted that they prefer to be close to their kids as they move from one activity to another. Several participants (P-6, P-4, and P-10) emphasized a need to be near their children to always have them in sight, and to be able to watch them play. Participant (P-10) noted, "I need to be next to her [my child] to be able to see if she is happy or worried. I have to be around and right next to her".

2. Visual Connectivity:

As evident in the above discussion, physical proximity needs to be accompanied with clear visibility to facilitate interaction. The interviews revealed that being able to see the children, even through glass windows, gives the guardians a sense of reassurance, while also allowing them to offer their children essential emotional support.

Participants appreciated that the transparent glass facades at Kidzania permitted them to have a clear line of sight of their kids inside every station, which improved the interaction between guardians and their children (Figure 5). Participant (P-2) stated, "Being able to watch them [my children] is really what matters to me, whereas not being able to hear isn't a big issue. As long as this glass is here, I'll be able to watch and have an eye on them".

Another participant (P-11) added, "The glass facades allow me to see my kid playing and take pictures of him, it also allows me to know what is going inside".
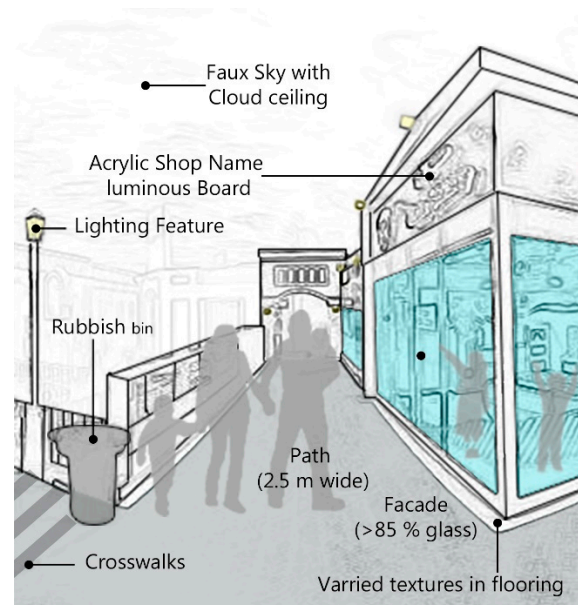

Figure 5. Clearance of sight, increasing interaction between guardians and children. Source(s): Authors (2022).

Visibility is clearly associated with reassurance, as shared by participants. Parents pointed out how visibility and monitoring influences their sense of reassurance. Participant (P-7) said, "The glass facades allow me to see my kids. For me, I am reassured that they are good. I can tell from their faces".

Another participant (P-3) emphasized, "I am reassured as long as I can see what they are doing inside". Moreover, Participant (P-7) added that her daughters themselves also feel reassured when they are able to see their mother or father.

Another finding revealed from the interviews is that the glass facades allow guardians to communicate with their children through nonverbal communication, such as gestures and body stance, whether to offer them emotional support or instructions. This is consistent with the findings of Hall, who emphasized that at thirty or more feet, the details of facial expressions and movement are hard to decode [73]. Participant (P-9) mentioned that he wanted his son to put back on his mask after taking a picture, so he waved to his daughter to help her brother wear the mask. On another occasion, he wanted to tell his daughter to take care as she was about to fall, and although she could not hear him, she saw him waving. Another mother (P-10) stated that her daughter sometimes needs some emotional support, which she can provide for her through the glass. She explained, "She needs support by looking at me and waving for a yes or a thumb up, and she waits for me to reply back".

3. Provision of Basic Amenities:

Another important factor facilitating guardians and kids' engagement, which is lacking in Kidzania, as shared by participants, is to provide the basic amenities needed for the guardians. Most of the guardians claimed that there is a need to provide more seating areas to help parents feel comfortable during the time spent there. Participant (P-5) stated, "There is a need to increase the number of seating areas". Although there is a lounge available, it is not very convenient for parents of younger kids, as it is far from the playground. Participant (P-9) commented on the available parental lounge, saying "Maybe if I had older kids, I could stay there and when they finish, they come back to me". Another guardian (P-5) agreed with this idea, stating, "Yes, there is a lounge, but I refuse to leave my kids

alone ... I'm with my eight-year-old boy and his friends, I am following them in every single game".

Apart from the lack of proper seating areas, parents praised the availability of food and drink, which are also essential amenities, as children and guardians spend at least four hours in Kidzania. One guardian (P-13) said that the food inside Kidzania is good, and that she can go and have a cup of coffee and get some rest.

5. Conclusions

This study aimed to explore the perceptions of guardians towards edutainment environments, with special reference to Kidzania's branch in Cairo, Egypt. The findings of this study confirm the importance of such interactive cities for children in developing their problem-solving skills, and accordingly supporting education through entertainment. In that sense, such edutainment environments can be considered as significant informal educational play settings in which children learn valuable life skills, complementing those learned in formal learning environments. In this study, a range of findings emerged in the form of two themes: qualities of the edutainment environment, and factors affecting the interaction between guardians and children.

The first theme, qualities of the edutainment environment, included three categories: safe environment, exploratory environment, and well-maintained environment. Participants highlighted three safety-related elements: confinement, low density, and good lighting. Participants also largely appreciated the exploratory nature of Kidzania's environment, expressing numerous advantages for the children's personal and social development in addition to the cognitive skills. Furthermore, participants accentuated the importance of maintenance, which also extends to architectural details. In addition, sanitation and hygiene were two major concerns raised by all participants, particularly during the COVID-19 pandemic.

The second theme extracted from the interviews was "factors affecting the interaction between guardians and children". The first factor facilitating the children–guardian interaction was physical proximity. Despite the guardians' keenness on encouraging their children's independence, many participants noted that they prefer to be close to their children as they move from one activity to another. The findings also emphasized the importance of guardians being able to see their children. Participants appreciated the transparent glass facades at Kidzania that allowed parents to have a clear line of sight of their kids inside every station, which in return enhanced the interaction between guardians and their children. Furthermore, there was an overall agreement between the participants on the need to provide more seating areas to help parents feel comfortable in the time spent there. On the other hand, parents praised the availability of food and drink, which are fundamental amenities in such edutainment environments.

As for the limitations of this study, it should be noted that the number of participants involved in the study is relatively low. This was due to the COVID-19 pandemic and the fear of risk of direct infection. Moreover, in many instances, parents refused to participate in the study because they were keen not to waste any minute of their children's play time. That said, the responses gathered were sufficient to provide an exploratory overview of the topic, which can be further expanded in future studies.

In that sense, future research could extend the work presented in this study by investigating other types of edutainment environments in Cairo and in other cities in Egypt. Furthermore, other studies are encouraged to expand the investigation of edutainment environments in the Egyptian context by exploring the perception of other parties and users involved such as children, employees, investors, and industry partners. In addition, the findings of this exploratory qualitative study could certainly benefit from confirmation from other studies adopting mixed methods and quantitative approaches. Such research might ultimately help in providing new trends that aim to create thriving, stimulating, and inspiring edutainment environments and other similar informal learning environments.

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