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Interactive Design Work with Kindergarten Children: “Bird House” Digital Presentation and Practice

M. Tolga Akbulut ^{a*}, Aynur Çiftçi ^b, Elvan Ebru Omay Polat ^c

^a*Yıldız Technical University, Faculty of Architecture, İstanbul 34349, Turkey*

^b*Yıldız Technical University, Faculty of Architecture, İstanbul 34349, Turkey*

^c*Yıldız Technical University, Faculty of Architecture, İstanbul 34349, Turkey*

Abstract

The workshop that is subject to the study is to use today’s technological advances for gaining better understanding of architecture for kindergarten children. This is to enhance children’s awareness and responsiveness for the world diverse cultural life and nature and aim to make them skillful and responsible individuals. This activity is created towards 3 different age groups at the same kindergarten school. This workshop is included of two modules, while information and storytelling which created in a digital environment towards children from the first module, practice phase (model making) forms the second module. It is clearly observed that during the process of workshop, throughout the digital presentations, children showed more interest and communicate better for images projected on the wall and by touching these images on the wall; they try to explain their emotions. The purpose of the study which is a more interactive than traditional methods for the development of kindergarten students aims to discuss the goals and transfer the results of the workshop in details

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1. Introduction

According to Bozkurt Güvenç, culture is the sum and a function of the interaction among the society, humanity, and variables such as education processes and cultural content. Culture encompasses a wide area and incorporates knowledge, beliefs, art, morality, law, tradition and customs, and skills and abilities developed by the individual as a member of the society (Güvenç, 1994).

Culture values and norms lead individuals to similar behavior within communities and help to protect the integrity of the society. Educational institutions (schools and non-governmental organizations) are tasked with

* Corresponding Author: M. Tolga Akbulut Tel.: +90-212-3832607
E-mail address: mтолga@yildiz.edu.tr

transmitting cultural heritage to younger generations. In addition to the function of transmitting existing culture, schools serve the purpose of advancing culture as well (Erden, 2001).

In the modern world, education is one of the key means to transmit culture to students and achieve cultural integrity in the modern world.

According to Professor Nurettin Fidan, the contemporary meaning of education is an effort to induce behavioral changes towards a specific purpose (Fidan, 2012). Tyler, who made important contributions to curriculum development in the 1950s, defines education as “the attempt at changing the behaviors of individuals.” According to Ertürk, education is “the process of making a deliberate and desired change in the behavior of the individual through their own experiences (Fidan, 1977).

Accordingly, education may be a means to create common awareness of designing healthy cities and architectural environments for the future and transmit cultural heritage from the past to the future.

The study forming the foundation of this paper is a workshop involving the students of the “Meşe Palamudu” kindergarten in Beşiktaş, Istanbul aims to impart architectural skills and knowledge to the children to enable them to become individuals with sensitivities towards the cultural and natural world they live in. The workshop is part of an event focusing on bird houses. The most important objectives of the workshop are to guide children in perceiving the environment in which they live, draw their attention to the circumstances surrounding them, and have them observe what they think and do. Preparatory work by the kindergarten included some activities facilitated by preschool trainers (watching documentaries on birds, inspecting bird eggs, stories about birds, information on bird wings and flight, etc.) were enhanced by digital media, while learning more about birdhouses, collecting materials to build birdhouses and making field trips to the Yıldız Park and Atatürk Arboretum to observe birdhouses were conducted with conventional lecture and observation methods.

The workshop was intended for three distinct age groups in the said kindergarten. The activity reached 9 children aged 3, 18 children aged 4, and 16 children aged 5 for a total of 43 children. The workshop was designed in two stages and the first day of the workshop included the transmission of knowledge and stories with multimedia presentations, and the second day, held a week later, included making model birdhouses. Presentations were designed by architects working in academic fields, and model-making was assisted by the trainers of the kindergarten. The subjects and scopes of both stages are provided in detail below.

2. Providing Knowledge and Telling Stories

This stage took 20 minutes in 3 sections, starting with the facilitators introducing themselves and explaining their purpose. The multimedia presentation included information geared towards preschool children on the work and purpose of an architect. This was followed by a short description of birdhouses as an element found on the façades of mosques, madrasahs, schools, inns and other works of Ottoman architecture, pointing out existing birdhouses to create awareness of this architectural element. The intention was to help children realize that humans are in constant interaction with the nature, animals and other forms of life, that all are critical to each other’s survival, and create a whole when brought together. In order to evoke the interest of children, a story-book was presented with the help of multimedia facilities. The presentation was made in a room measuring 3 by 3.5 meters, and a computer and data projector were used. Children were arranged in a semicircle opposite a white wall on which the presentation was projected, and were allowed to get up and take part in the presentation as they wished.



Figure 1. A slide showing the birdhouse found on the façade of a historic inn



Figure 2. The presentation of historic birdhouses and the presentation room

The presentation had 35 slides: 20 on architects and birdhouses, and 15 telling the story (Milbourne, Cleyet-Merle, 2007). Sections were delivered by different architect-academics in order to keep children engaged, and the total presentation time was 20 minutes. Slides were designed in vivid colors that would keep the children highly engaged.

Photographs of actual birdhouses were enhanced with cartoon characters to help children grasp the issue better. Colorful cartoon birds were drawn in the sidelines to keep children interested. Presenters stood beside the slide projections on the wall to maintain eye contact with the children and respond to their questions to provide an interactive environment. The responses of children and their interaction with the visuals projected on the wall indicated that the said presentation method was more effective in ensuring that the children understand the subject.

Interactive delivery allowed children to associate closely with the story being told, and enrich the narrative and content with their imagination. The children were actively engaged with the visuals projected on the wall; some of them walked up to the wall, touched the projected images, and tried to convey the feelings the images evoked in them. A number of children were particularly excited by some images and ran up to them, talking about what the specific images meant for them. Furthermore, the children wanted to share their experiences with bird nests and cages they saw around them, and it was discovered that they were familiar with and wanted to speak about eagles, seagulls, albatrosses and other species not mentioned in the presentation. In addition to verbal communication, children occasionally used body language and mimicked the wings and flight of birds.

The correlation between age and attention span (younger age means shorter attention time) was reconfirmed; however, children aged 3 and 4 were not disengaged from the subject even though they stood up and walked around due to the structure of the presentation (delivery in three sections by different facilitators; use of colors and graphic presentation).



Figure 3. A birdhouse made from a milk carton



Figure 4. Children walking up to the wall to touch the images during the presentation

3. Implementation Stage

The implementation stage took place on the second day of the event, where the birdhouse visuals were discussed against and students choose among articles collected from nature (pinecones, leaves, stones, etc.) and materials available in the school (buttons etc.) to decorate empty milk cartons they had previously brought from home and painted white.

Exterior elements were affixed with glue and silicon, and children placed interior elements according to scenarios designed for each case. Children were left free to choose materials and prepare designs, and facilitators only intervened to operate the glue guns. During this stage, it was observed that the information presented the previous week had positive effects on the children.

The names of the children were written on their birdhouses and each child explained the use of his or her birdhouse.



Figure 5. Making of the exterior of the birdhouse from empty milk cartons



Figure 6. Decorating milk cartons with selected materials



Figure 7. Making the birdhouse



Figure 8. A view of the birdhouses made by the children

4. Discussion

The following is a discussion of the contribution of multimedia tools to education based on the evaluations with

the facilitators and grade teachers of the Meşe Palamudu Kindergarten. Multimedia Digital presentation is a common tool in education, and older lamp projectors have been largely replaced by data projectors. Computer presentations have become an integral element of the education system.

While data projection offers high image quality and is more visually appealing to a younger audience who seeks action and engagement, if used only to screen videos, it may turn into a non-interactive tool that does not serve the purpose well.

Multimedia presentations are widely used for two purposes:

4.1 Supporting artistic work

Art activities include drama session where children discover how to use their bodies. Drama is shown to be more effective when used in conjunction with shadow art. This study in particular showed that the projection of bird images on the wall led children to interact with the bird using body language – holding its wings, mimicking its movements.

Another practical method is an activity around adding to or completing an image projected on the screen. An example is projecting the contours of the petals of a flower and then completing the image.

Freehand drawing (Paint) and image editing (Photoshop and others) software are also used for art activities with children. However, waiting in line to use the computer and individualistic behavior detracts from the excitement of the creation phase. Therefore, preschool trainers prefer more conventional methods in practical art activities.

4.2 Supporting learning during the concept delivery phase

Multimedia tools are used to support learning at the beginning and later stages of the concept delivery phase. Examples are documentaries about birds, bird images and avian sounds. In the aftermath of the project, children revisit their own creations with images and video recordings. These reinforce learning and enable a digital and collective review of the learning process.

The workshop is only part of the Birdhouse Project, which was designed as a continuous activity. Birdhouses made by children are currently on display at the entrance of the school. These will later be placed in the garden, supplied with feed and water, and will be observed by children to understand how birds use these houses. Camera recordings will be made in the absence of children, which will then be screened to deliver more information to the children about the use of bird houses and enable them to continue their observations using multimedia tools.

At a time when digital technology is prevalent in all aspects of life, the proper and prudent use of new technologies becomes increasingly important in education, provided that precautions are taken to prevent any negative influence on child development.

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