Using Hypermedia in Teaching Baroque Interior Design as Seen in Dutch Paintings

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Abstract—**Although the whole world adapts ICT - information and communication technologies - in learning and teaching visual arts for the benefit of both the student and the society, the Middle East is motionless. ME teachers need training, institutional support and motivation to apply ICT in classrooms. Preparing a traditional lecture, including visual projected examples by data show takes less time. Doing comparisons and contrast, going through formal analysis or juggling between visual examples is complex within classrooms' technological limitations of having one projector. There is an urgent need to alter traditional methods of teaching art and design and integrate pictorial approaches. This paper discusses design/art pedagogy via a suggested model lesson, which utilizes hypermedia to resemble internet interface. The lesson teaches Dutch Baroque interior design through a selection of Vermeer's paintings. Vermeer accurately painted interior elements in his paintings. The development of technology stimulates students' imagination and develops their understanding of more influencing graphical forms. Any other art and design themes and styles can be taught by using the same interface.**

Index Terms—**Dutch Interior Design, Baroque Art, Photoshop CS3, Hyperlinks, Design Pedagogy**

I. INTRODUCTION

The integration of ICT in learning and teaching visual arts has become a high priority [1]. It is not only for the benefit of the students, but the whole society, which demands new visual literacy for its citizens [2]. Today. in 2010 there is more incorporation of ICT in education to improve quality of teaching and students achievement. More than twenty years ago Bruce Crowe (1988) has assured that ICT assists students with exploring design problems, develops artistic decision making and provides new opportunities for learning, the integration of ICT in learning and teaching visual arts should have become a high priority. Unfortunately this is not taking place in the Middle East for many reasons. Using an appealing interface needs long hours of preparation; the poor teacher training opportunities and the lack of institutional support are significant impacts on visual arts teachers' motivation to integrate. Traditional lectures and teaching styles are still taking place in most faculties of art and design, "except for some isolated attempts at innovation" [3]. Educational process used to be a one-way of group communication; a teacher deliberately sends an informative message for idle receivers. Students' feedback, which is supposed to help the teachers adjust their coming lectures, is not considered. In fact with the high capacity of classrooms, it is very difficult for teachers to have time to care about student's feedback, advice or objectively evaluate thirty students in design studio and computer labs, and eighty in theory classes. Unfortunately, most of the time it is 'yes' and 'no' answer because there is no time/space to answer questions that begins with 'why'. Despite of knowing that students are neither receivers nor empty pots to pour information in, this is the way education is practiced in most Middle Eastern universities today. The essence of educational process must have energetic students as constructors of knowledge and dynamic teachers who are continuous learners. The process is conditionally structured and pre-planned to go from one piece of information to another in order to motivate a life-long learning process. Creating the right educational atmosphere is a collective task. It is about designing attractive classroom, planning instructional lesson, motivating class interaction and discussion, responding to feedback, evaluating outcomes according to certain criteria that fit the objectives of each lesson.

Teaching/learning process in Jordan is based on individual efforts instead of collaborative team work. Most art and design instructors in the Middle East undergo technology limitations. Very few use formal PowerPoint presentations in class. The conventional teaching methods have to be revised to have more interesting interfaces and pictorial databases. Educationalists have argued that the use of presentation software can encourage a more active learning environment which increases the effectiveness of classroom lectures and lends greater clarity to lectures, making them easier to follow [4]. Applying technology offers exciting opportunities for enriching and transforming art and design teaching and enhances lessons through multimedia [5] and [2]. While planning a new interface to present art/design class, one keeps in mind the youths' interest in internet, especially in Irbid, Jordan where there are about 500 internet café in town, besides thousands of ADSL modems for home users. Many studies indicate that the age 18- 22 constitutes 85% of internet cafés visitors in Amman and Irbid [6]. Another interesting study tells that Irbid has the world record of highest number -135 internet cafés- in Yarmouk University Street. Designing an interface resembles a website would be very attractive for undergraduate students. Internet and web page construction play a great role in supporting students' artistic expression and understanding [7] and [8]. I will use hyperlinks to make a presentation of text and images easier and moving from page to another faster.

II. HYPERTEXT/HYPERMEDIA

The use of hyperlink in education is an important target of computer and information revolution because it offers great opportunities to learners. It is more attractive for college students to project a window that looks like an internet interface with back and forward buttons than PowerPoint traditional slide show which looks formal. At the same

time, it doesn't require server space or special connections because the folder is saved in the teacher's computer and easily can be copied to students' memory cards as well. PowerPoint presentations and slide shows can be very boring [9]. Many students find them dull and accuse some teachers of becoming note-dependent when using Power-Point. "The linear software presentation' tools such as Microsoft PowerPoint are fundamentally limiting" [10]. Shapiro and Niedrhauser suggest four defining features that distinguish hypertext and hypermedia as unique approaches: "they are non-linear; they provide the user flexibility of information access; and they provide a higher degree of learner control than traditional media sources" [11]. Hypertext refers to any digital document that stems off to many other documents and offers user to read, create or edit links [12]. This term has been used for few decades to explain the expansion of traditional flat form [13]. The first attempt to express hypertext was in 1945 when Vannevar Bush described how the human mind works by associating pieces of information and applied his new concept to a machine called *Memex*. His application allowed the user to connect two separate pieces of information together. By using links between modifications and original documents hypertext was created. Similarly, hypermedia is an extension to hypertext, except in linking text to images, audio and video files. "In the early 1980's, second generation system began to emerge, which used workstations with more advanced user interfaces and graphics" [14]. Using hypermedia in education is fairly young; academic research in this field is still developing. Both the educational benefits and potential applications of hypertext and hypermedia in education are in need for more studies. By means of hypertext and hypermedia teaching process is easier, especially when technological facilities in local institutes are poor. Instructors have to keep in mind that this approach can cause several networks problems. When you move a document from one computer to another without its links, the result is dangling links that leads to nowhere.

III.   PURPOSE AND OBJECTIVE OF RESEARCH

Most teachers of fine arts and visual communication in the Middle East depend on lecturing during projection of individual digital images, one by one. It is not easy to present definitions, ideas and different examples in one screen in classroom. In some classes, the screen ends with having tens of opened windows, what confuses both teachers and students. There is an urgent need to make a big change in teaching by integrating hyperlinks to assist teachers in presenting all needed examples through one window and back/forward arrows. This will ease the teacher's task in classroom and help students concentrate more on the content of what is taught because the screened interface is a piece of design itself. This enhances the students' understanding and comprehension.

The main purpose is simply to achieve effective and productive teaching that improve learning outcomes and manage interactive atmosphere. Students' learning enhancement is anticipated; the model lesson is more explicit and purposeful than using the traditional approach of one speaker reciting information and projecting individual images to students. Using both hypertext and hyperlink in teaching visual art and design courses engages and motivates students in class discussion and interaction, which is considered a positive indication of comprehen-sion and understanding. Technological advances enhance educational process, establish a focused learning environment, nurture the development of visual vocabulary and support student's intellectual progression in art. Teaching visual art within its cultural context becomes more accessible in a digital environment, which affords more spaces to construct appropriate settings. I design a pictorial interface by using the slice tool and its options in Adobe Photoshop CS3 and save for web and devices format [2]. All hyper-linked files have to be saved in web page format too and all files are placed in one folder. The aim of using this approach is not to amuse students, but to present clear text/images in an easy and interesting way that helps students to participate and follow up after class on what they have learned in class. There are some goals to be achieved: stimulate students' imagination, provide more linked details, develop more understanding and explore creative concepts. The model lesson considers the cognitive load theory as one way of improving traditional instructions. Its instructional module is the instruction itself. The attached information has to be designed to minimize cognitive load and enhance working memory [15]. To effectively enhance the structured lesson that is based on hypertext and hyper-media, the graphical user interface and multimedia formats has to be clear and attractive.

IV.   BOUNDARIES

- The lesson discusses Baroque Dutch interior design in Vermeer's six paintings of Love Letters.
- The lesson offers multi-layered information by using 20 hyperlinked pages, in addition to the home page.
- The slicing tool in Adobe Photoshop CS3 is used to activate the needed hyperlinks.
- The model lesson covers a ninety-minute session.
- The images are taken from www.essentialvermeer.com that is created by Jonathan Janson (2001-2009) for its excellent quality and documented information.

V.   THE LESSON

Baroque Interior Design As Seen in Dutch Paintings

This lesson introduces two concerns (Fig. 1):

1. Various elements of interior design are presented in Vermeer's selected paintings.
2. Love Letters is an important theme in the seventeenth-century Dutch art.

Contemporary local pictorial elements in every painted room set a dramatic access and develop a sense of scale in Vermeer's paintings [16]; leaded windows, tables covered by decorative cloth, hanging curtains, carpets full of color-ful motifs, marble and wooden flooring, locally-made floor tiles, white-washed walls, clothes hamper, decorative man-telpiece and tiled hearth, wall covering, sewing pillow, broom, framed paintings and maps, and ebony boxes for writing utensils which were important for writing letters in general (Fig 2).

The seventeenth-century Netherlands saw very active sea trade. Men go away for months, while women sit home and write letters to their beloveds. Painting letters are mostly associated with love [17]; absent husbands and lovers were missed by their literate women. Dutch artists were the first to make the private letter a central focus in painting [18]. Literacy was an important skill for the citizens of a mari-time nation. "The ability to read and write kept the sea far-

ing traveler far from home in touch with those who remained behind" [19]. Letter writing was a sign of civility and sociability. Letters had long been used for commercial, military or state affairs. Dutch embraced letter writing as a highly personal and intimate form of communication. Dirck Hals was probably the first to paint women reading letters in 1630 (Fig. 3) [20].

Vermeer's Love Letters (Gallery Page - Fig. 4):

- Girl Reading a Letter at an Open Window, 1657 (Fig. 5).
- Woman in Blue Reading a Letter, 1662 (Fig. 6).
- A Lady Writing, 1665 (Fig. 7).
- Mistress and Maid, 1666 (Fig. 8).
- The Love Letter, 1667 (Fig. 9).
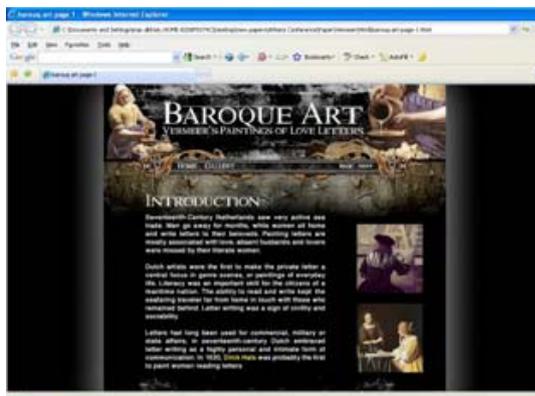- Lady Writing a Letter with her Maid, 1670 (Fig. 10).
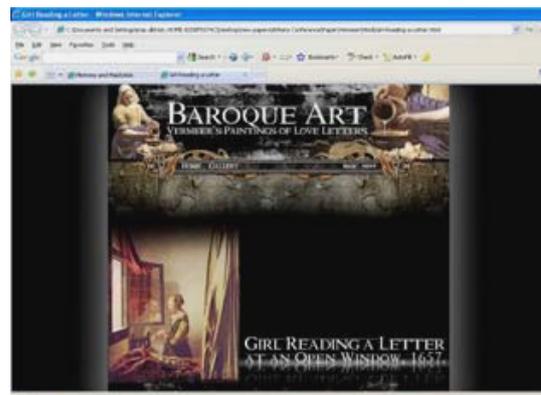

Figure 1.   Home Page, Introduction

Figure 2.   Interior Elements in Vermeer's Paintings.

Figure 3.   Dirck Hals, The Letter, 1630.

Figure 4.   Gallery Page, details.

Figure 5.   Girl Reading a Letter at an Open Window, 1657.
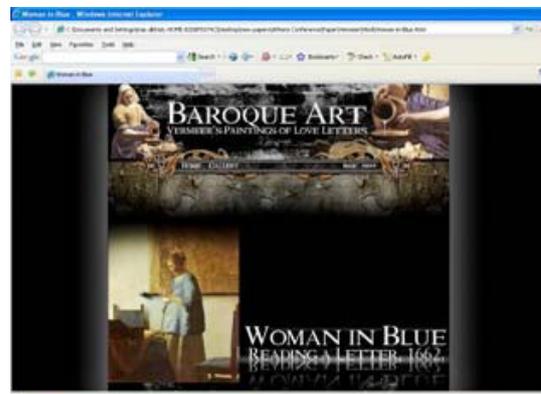
Figure 6.   Woman in Blue Reading a Letter, 1662.

Figure 7.   Lady Writing, 1665.

Figure 8.   Mistress and Maid, 1666.

Figure 9.   The Love Letter, 1667.

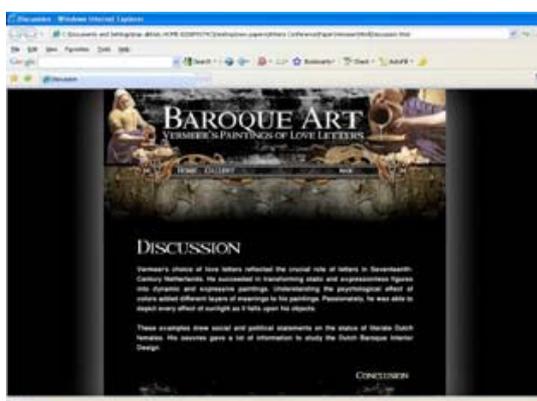Figure 10. Lady Writing a Letter with her Maid, 1670.

Figure 11. The Discussion Page.

The paintings stand out by simplicity of compositions. Vermeer always deals with young women who either stand or sit in the center of the composition. His paintings are full of local furniture, Oriental rug, colorful drapery and an open window on the left side. The viewer is confronted with Vermeer's sensibility and originality; the stillness that stands out, the inner absorption, the remoteness from the outer world.

VI.   CLASS DISCUSSION

Vermeer (1632-1675) is a Dutch Baroque artist devoted himself to paint local interiors, domestic lives and common females. He and his painted figures seem similar in many aspects: their precise work, extended time, inadequate space, countless details and silent existence [21]. His images are enveloped with expressive quality; unexciting moments are transformed into eternal truth, absolute devotion and timelessness. The influence of his native culture is clearly exhibited in his paintings to reflect cleanness of Netherlands and the great value of having hand-made objects. Vermeer's choice of love letters reflected the crucial role of letters in seventeenth-century Netherlands. These examples drew social and political statements on the status of literate Dutch females. His oeuvres gave a lot of information to understand the Baroque Dutch art (Fig. 11). "Emphasizing the relationship between stylistic development and cultural influence encourages students to appreciate the expressiveness of details, materials and their relationship to the creative process" [22].

Students realized Vermeer's sincerity in documenting his local interiors and emotional sensitivity in devoting six of his paintings for love letters as a theme. Most of students' comments were about presenting interior elements in their cultural and historical context. They also had positive comments on the modest painted women, especially the pregnant females. Young students' appreciation came from representational art, the artist's skills, and domestic subject matters. They also sympathized with Vermeer, the poor man with a big family, who -with all obstacles- created great art. Showing how he cared about local culture, local women, interior design, little details and valued traditions positively affected students' perception of his art. The students admire Baroque art for its drama, exhibition of emotions, exaggeration and expressiveness. They added that Vermeer's culture is very close to Middle Eastern old traditions. Telling short biography about the artist and narration of the artwork positively shaped young students' appreciation.

VII.   CONCLUSION

This paper does not qualitatively measure the students' corresponding role in learning process; instead, it presents a case study of using a simple ICT in one of the Jordanian universities. The use of ICT in general and hypertext and hypermedia in specific to present the local interior elements in Vermeer's selected paintings helps preparing students as visually literate and critical members of society and makes them more interested in class activity than attending a traditional lecture. Designing an offline website helped the teacher to move freely between different forms of texts and images in one window. Teaching my structured lesson with one projector was a doable task. The development of technology stimulates students' imagination by providing visual materials and develops their understanding of more influencing graphical forms. The potential to use hyperme-

dia and hypertext in education is significant and it needs more studies. Technological advances enhance learning opportunities for art/design students, establish a focused learning environment, and nurture visual vocabulary. Teaching visual art within cultural context becomes more accessible in a digital environment, which affords more spaces to construct appropriate settings. The presentation of Baroque, Dutch interior pictorial elements in Vermeer's paintings of love letters can be planned for many other lessons/courses in visual art/design. It is essential to encourage art/design teachers to integrate information and communication technology in teaching. More researches are needed in this field.

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