

Full Length Research Paper

Technologies in the art classroom: Using technologies in art classrooms to overcome cultural limitations to support teaching and learning

Abeer Alawad

HND (Saudi Arabia), BA (Hons-UK), MA (UK), PhD Northumbria University, Newcastle Upon Tyne - UK

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The purpose of this paper is to review the benefits of using technology and the Internet in the educational sector. I will discuss how we can apply the findings to the specific environment of the art classroom and a specific culture: Saudi Arabia, to enrich the experience of learning and teaching in art education. The paper draws and reflects upon my thirteen years experience of teaching art in girls' intermediate schools in Jeddah, Saudi Arabia and my previous research into art classroom environments. I completed research into the art classroom environment by using a mixture of research methods such as observations, interviews and questionnaires. Even though technology was only a small part of my investigation, it was one of the elements deemed fundamental in the art classroom environment and therefore worthy of further research.

Key words: technology, art classroom, Saudi Arabia.

INTRODUCTION

There is a technological revolution happening in classrooms in Saudi Arabia today. The Kingdom of Saudi Arabia is located in the southwestern part of Asia and constitutes more than three-fourths of the Arabian Peninsula. The country is divided into thirteen regions. Each region has different geographical and environmental influences. However, there is a standard curriculum for each school level. The Internet allows the teacher to adopt the curriculum so that it suits the students from different regions.

New technologies are constantly being introduced and implemented into the education system. Technology is a catalyst to learning and personal development. Students are growing up with different types of technology such as computers, iPads, cell phones and mp3 players. The term digital native implies that young people are more skillful in using these new technologies than most adults. It is important that teachers can work with this seemingly innate skill and utilise these popular gadgets to make

connections between outside interests and the art classroom to raise student interest. The aims of this paper are to draw attention to the benefits of using technology in the art classroom and how this can overcome the cultural limitations in the art classroom.

Previous researchers raise the importance of using technology in classrooms in different grade levels and in a variety of subjects to enhance teaching and learning (Neiss, 2001; Kerrigan, 2002; Mistretta, 2005; Coley et al., 1997). Technology can add value to the whole educational process affecting teachers, students and the curriculum alike. I will discuss these three aspects in this article and link this discussion into an analysis of my results.

Teachers

Technology has radically changed the role of the teacher.

No longer are teachers simply presenting the material to the class they now can act as facilitators of student learning. This enables teachers to actually view the learning process as it occurs. Teachers can perform different roles in the classroom as they can lecture, facilitate and coach students (OTA, 1988a). Therefore, due to this new technology the classroom has become more student-centered (OTA, 1988).

By using technology teachers can solve a range of educational problems. The variety of internet classrooms and telecollaborative projects now on offer provides a wealth of opportunities and options for teachers to consider how and what they can implement into art education and other subjects. However, it is clear that some art teachers refuse to use electronic media because they fear the danger of prioritising form over content, and a loss of the spirituality connected with art. The problem also lies in traditional attitudes, which come across with the view that computers are for sharing information, favourable only to academic subjects like science and maths, but not for the study of aesthetics. Art teachers rely on images in order for them to communicate effectively about the subject of imagery. Many teachers use slides, videos, or reproductions in books, and have their own sets of lessons and activities. Since art teachers characteristically have restricted budgets, they often do not have sufficient visual resources. Therefore, technology in the art classroom is imperative so teachers can access these images and resources to share with their class.

The teacher's role is crucial and they are an instrumental element in the integration of technology into the classroom as technology can only be successfully implemented if teachers make the correct choices relating to their teaching style, the curriculum objectives and the needs of their students (Strommen and Lincoln, 1992). Teachers should be allowed flexibility when using and choosing technology for their lessons. Technology also offers educators effective ways to reach different types of learners and assess student understanding through multiple means. It also enhances the relationship between teacher and student.

METHODOLOGY

The purpose of my study was to investigate students' perceptions about their art classroom environments which either stimulate or inhibit the development of creative thinking and practices, in girls' intermediate schools (12-15 years) in Jeddah, Saudi Arabia. In the increasingly popular area of research into creativity in education: students' perceptions of creative thinking and practice are a key resource for educators to be innovative in creating educational excellence.

The three approaches of interview, questionnaire, and observations were used in this study to identify both the range of environmental factors and perceptions of influencing factors. Within the constraints imposed by some of the schools' facilities, art teachers in selected schools mentioned in the interviews that students are encouraged to take risks and try new things through the use of different teaching tools; such as using technology during

art sessions.

Additionally, behavioural mapping involved photography of the empty classrooms and the recording of room layout, including furnishings, use of technology or displays, etc. This provided the context for the observational notes of student and staff interactions during art activities. The use and implementation of technology within each classroom was observed and analysed.

The questionnaires wanted to discover what the most important facilities needed in the art classroom were to help the student try new things and be more creative. One hundred questionnaires were distributed to randomly selected students in each of the participating schools. The questionnaire covered different factors of the art classroom environment, including its physical, social, cultural and emotional characteristics, and their effects on students' creativity and ability to try new things. One of the questions specifically focused on whether the use of technology encouraged the student to try new things.

Students

Most students appeared enthusiastic about using technology in the context of the classroom. Students' response to this question revealed that a high percentage of students in all schools 'strongly agreed' with a high average overall score (65.4%) that the use of technology (either a teacher using it to explain a topic or a student using it to complete their work) encourages them to try new things in art tasks. This concurred with my observations of technology use in the selected private schools during the art classes, which were noted to increase students' excitement and aid in understanding of the explanation of the topic.

By encouraging students to develop technological skills it has been found to ultimately help them with their overall learning and thinking skills (OTA, 1988b). Technology enables students to develop a variety of critical thinking skills. For example, it encourages students to solve problems, think for themselves, and collaborate with each other (OTA, 1988b). CAST study found that the students thrived in the context of a semi-structured lesson. The students were asked to use the Internet to research curriculum topics and complete a final project. The flexibility of the lesson and the use of technology enabled students to become independent and critical thinkers. (Coley, et al., 1997). In addition, technology enhances productivity of both teacher and students (OTA, 1995).

By letting students choose and use the most appropriate technology tools to help them find, analyse and assimilate information it enables technology integration to occur in the classroom. This research has shown that the use of technology will facilitate lessons and stimulate the attraction of students, and increase their interest in the subject. Therefore the use of technology in art classrooms may raise student interest, promote class participation, teach new skills and help students make connections between the classroom and the outside world. In addition, it could help students who don't normally participate in face to face class discussions have an active role in online debates.

Curriculum

Some teachers are now beginning to see the power of technology to change the curriculum and/or pedagogy and implementing a more student-centred approach changes the concept of learning. Technology can transform the curriculum and the learning experience. Instead of learning being passive and involving rote learning technology enables it to become active. Harris has emphasised the advantages of using telecollaborative projects in the classroom. Telecollaboration is an educational tool which utilises the Internet's tools and resources to enable teachers and students in different areas of the world to work together. This form of innovative activity is curriculum based and teacher designed

providing a range of educational benefits such as expanding the pupil's global awareness and helping them be aware of different opinions, experiences and ways of thinking (Harris, 1998). Some technologies such as tele-collaboration may help solve time and distance problems that have traditionally interfered with collegial interaction.

The use of technology in classroom arguably has benefits for the teaching of the curriculum because it will allow access to the most up-to-date information and help to provide valuable artistic experience; and this can lead to new opportunities for creativity, communication with others, learning about art in different cultures, sharing of ideas, and inspiration.

Schools have always made efforts to give students realistic experiences of technology through field trips, labs and various extra-curricular activities. Santrock, pointed out that students' creativity can be enhanced by positive examples such as field trips to museums and galleries (Santrock, 2004). These activities have remained in the form of academic instruction and it has been difficult to integrate these activities into schools due to numerous problems. Technology has helped to offer tools to solve these problems. It creates new opportunities for learning environments by bringing problems from the real world into classrooms for students to investigate and solve (Sahin and Turan, 2009). Furthermore, technology not only assists students to build an active environment to solve curriculum-based problems, but also helps them to develop the necessary skills to live and solve their own problems (Heise and Grandgenett, 1996; Sahin and Turan, 2009).

To help students gain more information related to the curriculum students need to find information from a variety of resources, such as using the different search engines on the internet. For art education, the internet provides a real opportunity to view or learn about art in different cultures. An art educator can find many resources, such as curriculum ideas that may reform the way art is taught by incorporating visual resources and contextual information from many different cultures. Students can create and send art images to other classrooms around the world. This allows a mutual sharing of ideas and inspiration, and the use of the Internet can provide students with valuable artistic experience and can open new opportunities for creativity. The students can become more active as they explore new areas of learning. The Internet can benefit the art teacher by assisting them in finding more information about artists or periods in art history, allowing contact with other artists, and aiding awareness of new tools for the art classroom (Heise and Grandgenett, 1996).

DISCUSSION

The overview of this paper has discussed the general use of technology and the Internet in relation to a variety of subjects and ages. This discussion focuses on the methodology and the art classroom in intermediate schools within Saudi Arabian culture. While it can be acknowledged that each developmental stage for a child can be critical for experience for different reasons, the adolescent phase of intermediate schooling is particularly relevant to art education in Saudi Arabia. This is because this period in their education is when attending art lessons is not an option, and therefore every effort should be taken to provide an effective learning environment. This period is a time of great transition; it is unique and significant in human development. It is a transition from an individual's childhood years to the beginning of young adulthood. The children at this stage (puberty) are

changing physically, biologically, emotionally, socially and intellectually.

In adolescence, 'individuals more intensely pursue independence and seek their own identity. Their thought becomes more abstract, logical, and idealistic' (Santrock, 2004:36). Intellectual development, throughout adolescence, involves changes in the brain that increase learners' computational skills as well as their ability to control behaviour in any level of stress or condition. However, until the early 20s, these abilities are not fully realised because brains are not fully developed (Woolfolk et al., 2008).

Art education is a tool that an individual uses to express ideas, feelings, emotions and reactions about the apparent and unseen things in the environment. As with other educational subjects, art shapes an individual's life and helps them to procure a post in society and be successful in life. It enhances the artistic, mental and spiritual aspects of life and helps to integrate the personality. Therefore, the presence of technology can develop the quality of the learning experience. However, art education in intermediate school is divided into three main activities: drawing, painting and sculpture. Each part needs different resources, instructions and materials.

Art is an emerging and expanding subject. Each day brings new tools, methods and materials. In addition, art books are usually expensive for teachers/students and difficult to find the right resource. The school library often has a small selection of books on art, but these are frequently quite basic and general, and not particularly relevant to the curriculum. Therefore, access to the internet is important and being able to view a book before ordering would offer the opportunity for teachers to increase their awareness of literary information as well as provide additional resources. Moreover, if there is an internet communication between art teachers they could borrow books and other resources at any time from each other.

Art is a theory and practical based subject. Therefore, the use of technology will add value to the lesson and ensure the teacher uses a range of different methods to explain the topic. A computer station would be useful in allowing teachers in Saudi Arabian schools to bring CD ROMs to the class with many diverse examples of artwork to show students. This positive example of the use of technology will help the teacher demonstrate new artistic approaches and techniques. The availability of computers in the art classroom can help teachers to plan lessons and introduce new techniques to students that normally could not be demonstrated within the class environment. Another positive example of the use of technology in the art classroom relates to the fact that it can overcome cultural limitations to support teaching and learning. Technology can aid the teacher to provide additional educative experiences within the Saudi Arabian legislative framework. Saudi Arabian schools are separated by gender so this would preclude a male artist

visiting a classroom in person. Flexible use of a video link or smart board would allow students to gain the benefits of outside expertise without contravening the law.

As Santrock stated field trips benefit the student. However, due to the high number of students in each class these trips are often difficult to arrange for Saudi Arabian girls' schools. Even if such visits are allowed, only a few outstanding students who received high grade point average (GPA) scores in all subjects can take part. All students have a need to expand their horizons through such visits; and use of technology may overcome this barrier, for example, 3D computer tours allow the student to get a better feeling for a place without visiting in person. Many web sites have an e-mail facility meaning that students can contact the museum staff to ask additional questions and expand their knowledge.

Creating an online art gallery is an easy way to publish students' artwork. Therefore, the positive use of technology will help students in other parts of the kingdom to know about their diverse culture and share ideas with others. This point is of benefit to a student's life experience. Secondly, schools in Saudi Arabia are separated by gender therefore girls can share their vision and views with boys, provide constructive criticism of their peers' work and the use of technology will encourage them to think outside of the box. Interpersonal art exchanges and interactive projects enable a richer learning experience for students with immediate feedback. The considered use of technology may help to overcome a number of issues in this learning context and further research is needed in this area. For example, would the availability of PC's in the classroom encourage creative thinking, and inspire/motivate students to make the best possible use of their lesson time, or would it quickly become an accepted norm?

Conclusion

This paper has investigated to what extent we can use technology in the art curriculum, and what benefit this will have for students, teachers, and the delivery of the curriculum itself. I propose that the use of technology may help to overcome a number of issues in this learning context, which I discuss below. Firstly, would the availability of PC's in the classroom really help teachers to plan lessons effectively in introducing new techniques? In what new ways can technology enable the teacher to provide additional educative experiences within the Saudi Arabian legislative framework? As Saudi Arabian schools are separated by gender which would preclude a male artist visiting in person, flexible use of a video link or smart board would allow students to gain the benefits of outside expertise without contravening the law.

In Saudi Arabia can technology cover for the limitations of cultural learning and sharing of ideas, and inspiration? Otherwise students would be unable to take school trips out for cultural reasons which have made these difficult to

arrange for Saudi Arabian girls' schools; even if such visits are allowed, only a few outstanding students who received high grade point average (GPA). These are the some of the questions that need addressing in the future.

This paper has reviewed the benefits of using technology in art classrooms in Saudi Arabia which can overcome a number of issues and cultural limitations, and the benefit this will have for students, teachers and the curriculum. It is clear that careful use of technology under teacher control will help the art teacher by allowing them to diversify their teaching session, display more information and enhance student learning.

However, there are some disadvantages to using technology. Firstly, using technology can be an intimidating and daunting prospect for some teachers and students; the likelihood of an unexpected equipment failure means teachers will always need to create alternative plans; it is time consuming to learn about new technologies and there are obvious expenses involved in using technology. Nevertheless, as mentioned in this paper the advantages for using technology often outweigh the disadvantages.

In conclusion then, it is clear from this paper that further research is needed and I advocate internet-based learning and in particular the use of internet classrooms to enhance traditional teaching and learning methods. Using technology in art classrooms facilitates and supplements the learning and teaching experience and can contribute significantly to the development of the intellectual, creative and transferable skills emphasised in art education.

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