

# **REINVENTING VISUAL LITERACY EDUCATION FOR UNDERGRADUATE STUDENTS**

## **INTRODUCTION**

There is a popular belief that millennial generation students are more visually oriented, due to the proliferation of visual media in contemporary society such as iconography used in mobile devices. Under this pretext, millennial students should possess greater visual literacy, the ability to create and interpret visual information. However, research has suggested that undergraduate students, on average, are not better prepared to handle this influx of visual media. The lack of visual literacy education in most majors does not prepare students for successful visual media implementation. This report aims to provide educators with the principle visual literacy skills that prepare students for their post-baccalaureate careers. Equal emphasis is placed on the interpretation of appealing visual imagery as well as its creation.

## **METHODS**

The necessity and implementation of visual literacy education has been previously documented in higher education. A survey of 485 undergraduate students conducted by Eva Brumberger (2011) at Virginia Polytechnic Institute (Virginia Tech) was used to determine the current visual literacy skills of their undergraduates. Anne Spalter and Andries van Dam (2008) at Brown University defined their principles of a technologically-oriented form of visual literacy, termed digital visual literacy, and applied them to a design course aimed to improve students' visual knowledge. Ron Bleed (2005) from Maricopa Community Colleges District has cited numerous classes where implementing visually-oriented assignments was done to great effect.

## **FINDINGS**

Brumberger's (2011) survey tested students on both their abilities to create and interpret visual media. For creation, students were questioned about their proficiency with a handful of visually-oriented technologies, including presentation software. The majority (75%) of students expressed that they were somewhat or very skilled with the presentation software of their choice. However, when pressed about the content they created with the software, the majority (79%) of students used default templates provided with the program instead of tailoring a design to reinforce the information they were presenting. Furthermore, when students were asked about the frequency with which they incorporate images into their presentations, just under half (49%) of students responded to including images with any frequency. The rest of the sample chose either infrequent implementation (40%) or rare to no implementation (11%).

To measure their ability to interpret visual media, students were asked to view multiple images of varying subjects to gauge different aspects of their visual analysis skills. The first image was an unaltered photograph of a wildfire in Montana, burning through the forest in the background as two elk stood in a stream. Students were asked whether or not the image had been manipulated. The majority (80%) of undergraduates answered that the photograph had probably or definitely been altered. Additionally, students supported

their answer with the belief that the colors and lighting were “too vivid and dramatic” to be unchanged.

Another photograph tested students’ ability to ascertain factual information from visual clue. The photograph consisted of an American soldier during the Vietnam War looking directly at the camera. Respondents were asked which decade the photograph was taken. Only 15% of students were able to infer the correct decade, the 1960s.

Similarly, Spalter and van Dam (2008) at Brown University looked to improve students’ ability to evaluate and create digital visual representations of data and ideas, what they called digital visual literacy (DVL). The five aspects of DVL were outlined as visual culture, art and design, vision science, computer graphics and visualization, and image economy.

Visual culture consists of the visual material to which people are exposed on a day-to-day basis. In order to improve people’s critical ability of constant visual media, they must be practiced in critiquing and interpreting these images. Art and design comments on the common availability of high-end design tools for nonprofessionals and the inconsistency of their design knowledge. While principles of design are becoming more frequent in everyday usage, any lack of knowledge becomes increasingly obvious in subpar work. Vision science deals with the how the human brain processes images. An understanding of these processes allows a student to be a more effective designer.

Computer graphics and visualization speaks to students’ usage of visually-oriented programs in the classroom. However, classes usually focus on the use of one software package, such as Microsoft® Office or Adobe® Creative Suite. The study suggests focusing on general graphics concepts that would assist a student in creating content in any program. Image economy acknowledges the new industries focusing on sharing and creating visual media, such as Flickr, YouTube, and Instagram. These businesses introduce more people to the creation and protection of their visual material, educating more people about online usage and copyright.

The faculty members applied these principles of digital visual literacy to a computer science course offered to all students at Brown University. The class focused on design assignments stressing each of these principles with constant feedback from both the professors and the other students in the class. These critiques allowed the students to refine their ability to convey information through visual media by knowing what their audience was able to interpret. Bleed (2005) reinforces the efficacy of implementing more visually-oriented coursework with his findings. He cites courses at multiple universities that substituted a research paper with a digital video. The visual media allowed students to be more engaged in the project and educated in the information.

## SUMMARY

Most students have, at best, a cursory skillset with which to create and interpret visual information. This impedes their ability to communicate in an increasingly visual world. It is not enough to be able to design visual media; students must be able to design effective visual materials, using the digital visual literacy principles outlined by the faculty at Brown University. Students from all disciplines will benefit from taking classes on art history and criticism as well as visual design, which focus on the interpretive and creative skills of visual literacy, respectively. Additionally, other classes can allow for a greater visual orientation in their curriculum. Professors should implement assignments that require the use of visual media, allowing students to engage and develop their visual literacy skills. These implementations will give graduating students a competitive advantage and the schools of the university advanced curricula.

## REFERENCES

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