# THE IMPACT OF VISUAL COMMUNICATION ON STUDENT ENGAGEMENT AND LEARNING

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#### Annotation

Visual communication in contemporary higher education is crucial. It creates a visual identity for universities and colleges, which attracts students and partners in a competitive environment, enhances the learning process, introduces complex concepts and encourages creativity and innovation. In addition, a well-implemented visual communication increases student engagement and retention as a visual approach creates a more motivating learning environment. Alignment with the brand and vision of the institution is key to the success of the institution. Future trends include innovation, personalisation and a focus on inclusion and sustainability.

### **Keywords**

visual communication, visual literacy, educational process, graphic design, visual identity, brand, future trends

#### 1. Introduction

Visual communication in modern education has become a powerful tool for improving the educational process and for stimulating student engagement, arguably without which even the best educational texts can lose their audience. Students value visual structure and the quality of information presentation in a way that makes it easier to digest, which requires learning materials to meet a certain standard of aesthetics and layout to meet the high expectations of learners.

Far from being just an aesthetic detail, visual communication combines visual design, creative elements, information technology and cultural aspects. The emphasis in this paper is not so much

on the specifics of communication and its implementation, but rather on their meaning and impact. Examining the impact of visual communication on the educational process is as essential to improving educational outcomes as is analyzing the quality and relevance of the material.

## 2. Visual communication in the context of higher education

### 2.1. Visual literacy

Visual literacy is becoming increasingly important in modern society, where images and media are becoming key elements of communication and expression. In modern culture, information exchange and communication are carried out through a variety of visual forms, and visual literacy is becoming a necessary skill for the modern individual. It is the set of skills that allow someone to effectively find, interpret, evaluate, use, and create images and visual materials. These skills enable one to understand and analyze the contextual, cultural, ethical, aesthetic, intellectual and technical aspects involved in the production and use of visual materials. The visually literate person is both a **critical consumer** of visual media and a **competent participant** in a community of shared knowledge and culture.<sup>1</sup>

In higher education, which is interdisciplinary in nature, a visually literate person is able to:

- Determines the nature and scope of visual materials required;
- Effectively and efficiently locates and accesses needed images and visual media;
- Interprets and analyzes the meaning of images and visual media;
- Evaluates images and their sources;
- Effectively uses images and visual media;
- Designs and creates meaningful images and visual media;
- Understands multiple ethical, legal, social, and economic issues related to the creation and use of images and visual media, and accesses and uses visual materials in an ethical manner.

In the various disciplines taught in higher education, students inevitably encounter images and visual materials during their studies. Working with them requires specific skills of research, interpretation, analysis and evaluation. These are innate or acquired but cannot be assumed as a

<sup>&</sup>lt;sup>1</sup> Bamford, Anne. The Visual Literacy White Paper. Adobe Systems Pty Ltd, Australia, 2003.

given and must be taught, supported and integrated into university life.<sup>2</sup> There is an emerging need to standardize and nurture visual literacy in the university environment. It becomes necessary for students to develop the skills and competencies that will enable them to understand and appreciate visual images, to use them effectively in their academic work and in their professional lives. Standardizing visual literacy as a required competency would provide a clear intellectual framework and structure for the development of these skills, allowing students to communicate effectively and engage successfully in today's visually oriented society.<sup>3</sup>

# 2.2. Visual communication

Visual communication plays an important role as an essential component of a university's overall management strategy, helping to convey the institution's values, aspirations and identity, attract new students, retain the loyalty of old ones and enhance the educational experience and success of all involved.<sup>4</sup>

Visual communication is emerging as a vital tool that can be adapted to meet a variety of communication needs, from conveying complex academic concepts to promoting the institutional brand. This versatility of visual communication is best illustrated through its various forms, each of which serves specific purposes in higher education. When these elements are applied consistently across different channels and points of contact, they can increase brand recognition and foster a sense of unity and cohesion within the university community.<sup>5</sup>

• Logos and symbols: The logo is the main visual sign representing the educational institution. It serves as a visual identifier and is used on all official materials and communications.

<sup>&</sup>lt;sup>2</sup> Green, David. Using Digital Images in Teaching and Learning: Perspectives from Liberal Arts Institutions. Academic Commons, 2006.

<sup>&</sup>lt;sup>3</sup> Information Literacy Competency Standards for Higher Education. Association of College & Research Libraries, 2000.

<sup>&</sup>lt;sup>4</sup> Hemsley-Brown, J., & Goonawardana, S. (2007). Brand harmonization in the international higher education market. Journal of Business Research, 60(9)

<sup>&</sup>lt;sup>5</sup> Ilieva, S., Graphic design - the contemporary art of visual communication, KSI Ltd, Plovdiv 2015

- Color palette and fonts: The color palette and fonts have an impact on the feel and mood of the messaging the institution wishes to convey, and can assist in highlighting selected values and objectives.
- Web design: The institution's website provides information to students and the public and its design should be attractive, easy to navigate and reflect the identity of the institution.
- **Printed materials:** Brochures, flyers, and other materials serve to communicate with students and the public, so their uniform visual style is essential to highlight the professionalism of the institution.
- Social media and multimedia materials: Modern marketing uses social media and multimedia to communicate with target audiences and is key to attracting attention and communicating effectively.
- **Campus design and signage:** The visual design of the campus includes signage, wayfinding and signage that not only facilitates student orientation but also contributes to the overall atmosphere and identity of the institution.

All of these aspects of visual communication work together to create a strong and consistent brand for the institution. Visual identity plays a critical role in establishing credibility, attracting new students and faculty, strengthening the loyalty of existing students and faculty, and establishing the institution's reputation in the educational environment and the global marketplace.<sup>6</sup> In addition to visual identity, the various forms of visual communication used directly in education and learning processes are indeed numerous and varied, and all serve unique purposes, discussed below.

# 3. The impact of visual communication on learning

In the context of the education and learning process, well-executed visual communication helps to improve learning outcomes. It serves as a powerful tool for teaching complex concepts and for concretizing abstract ideas. Images, symbols and graphics can overcome language barriers, which is particularly important in the age of increasing international student mobility, when

<sup>&</sup>lt;sup>6</sup> Brown, Robert M., and Timothy William Mazzarol. "The importance of institutional image to student satisfaction and loyalty within higher education." Higher education 58 (2009).

classrooms are becoming more culturally and linguistically diverse.<sup>7</sup> Online and distance learning is becoming more prevalent since the digital revolution and the COVID-19 pandemic, and visual communication is taking on an even more significant role in helping to make distance learning more interactive and engaging. In addition to aiding comprehension and retention, visual communication in teaching can also stimulate creativity and innovation, which not only deepens understanding of the subject but also provides valuable skills for the 21st century workplace.

Higher education institutions seeking to strengthen their share of the higher education market should encourage their faculty to incorporate visual communication into their teaching strategies to enrich the learning process for their students.<sup>8</sup> The advantages for this integration are indisputable, and the tools can be summarized in three groups with different purposes and direct impact on learning outcomes.

# **3.1. Improving student engagement**

- Educational literature: Branding and visual communication when applied for educational materials play an important role in the educational process because visual elements, colors, graphics and design create an attractive learning environment and can hold the attention of learners. Branding of educational materials creates identity and emphasizes the authority and quality of the information, which contributes to the confidence of students and teachers.
- **Presentations:** Presentations are a key visual communication tool in higher education and are used by students and faculty to share information, present research, and explain complex ideas. They allow the integration of different elements and are visually appealing and interactive, which assists in better student learning.
- Videos: Videos are a dynamic method of visual communication, combining audio and visual elements to better explain complex concepts in an interesting and accessible way,

<sup>&</sup>lt;sup>7</sup> Chanlin, L. (1997). The effects of verbal elaboration and visual elaboration on student learning. International Journal of Instructional Media, 24(4).

<sup>&</sup>lt;sup>8</sup> Chanlin, L. (1997). The effects of verbal elaboration and visual elaboration on student learning. International Journal of Instructional Media, 24(4).

as well as to conduct demonstrations and create learning material that approximates the real world. In asynchronous and distance learning environments, videos are also used for recorded lectures that students can watch at their own pace.

• **Infographics:** Infographics are visual representations of information, data, processes or statistics to simplify complex or voluminous information through design and visual elements. By presenting complex information in a more accessible format, they make it much easier to perceive and remember. Their main purpose is to be attractive and entertaining and to attract and hold the attention of learners.

# 3.2. Improving understanding of concepts

- **Data visualization**: Data visualizations make it easy to present information in a convenient way. They are used in higher education to quickly convey complex information and summarize large amounts of data.
- **Drawings, diagrams and diagrams:** They are used to visualize processes, sequences and activities. They present abstract ideas in a clearer way and contain concrete information, helping students to understand complex concepts, visualize the operation of devices or the relationships between different pieces of information.

# 3.3. Enhancing remembering

- Visual aids: Visual aids are visual images that are used to remember information easier and longer. They can be in the form of mind maps, diagrams, graphs, charts or other images.
- Emotional visualizations: This type of visual stimuli can make a significant contribution to students' acquisition and retention of information because of their ability to evoke and sustain emotional states. They contribute to the enrichment of students' educational experience and can be an effective tool in the learning process.
- **Repetition:** Visual communication has the potential to enhance the repetition effect by making the information provided easier to remember through visual anchors and stimuli.

All of the discussed examples of the application of visual communication can facilitate the understanding of complex concepts through clear and intuitive presentation. This makes learning processes and materials more accessible and appropriate for the diverse learning styles, abilities and skills of students. It is undeniable that investing in effective visual communication and branding of learning materials can enhance the educational process, facilitate learning and improve students' academic performance.<sup>9</sup> Although these insights shed light on the impact of visual communication on student engagement and learning, further research is needed to provide more detailed statistics and to examine the impact in different contexts and settings.

#### 4. Trends and future trends

New trends in branding and visual communication in higher education are shaping the way institutions interact with their audiences and communicate their core messages. These trends are based on three key perspectives: **value, aesthetic and identity-focused**. The **value-based perspective** emphasizes the importance of creating value for the target audience. In higher education, this can be achieved by demonstrating the institution's commitment to student learning, development and satisfaction. The **aesthetic perspective** highlights the role of visual elements in creating emotional responses and influencing consumer behavior. In this sense, universities are beginning to pay more attention to the aesthetics of their visual communications, striving for authenticity of visual content. Furthermore, the application of **social identity** theory to higher education branding shows a trend towards using visual communications to reinforce a sense of belonging and identification among students. Visual branding elements that reflect an institution's unique characteristics and values can serve as powerful symbols of identity and community, contributing to an institution's overall branding strategy.

Higher education is a dynamic environment, constantly evolving, influenced by technological advances, socio-cultural changes and the changing needs and expectations of students. The following emerging trends and future directions are likely to shape the landscape of visual communication in higher education:

<sup>&</sup>lt;sup>9</sup> Williams, V. S., & Dwyer, F. (1999). Effect of metaphoric (visual/verbal) strategies in facilitating student achievement of different educational objectives. International Journal of Instructional Media

- Augmented Reality (AR) and Virtual Reality (VR): AR and VR technologies promise to revolutionize visual communication in higher education, delivering engaging experiences for students and prospective students. Virtual experiences can provide insight into learning and campus life, strengthening the connection with audiences and finding application in both classroom and institutional communication.
- Data visualization: Universities are becoming increasingly data-driven, and data visualization tools play an important role in communicating research findings and institutional outcomes. New developments in these tools promise more sophisticated and interactive visualizations.
- **Personalized visual communication:** With the introduction of the concept of personalized learning in higher education institutions, visual communication will adapt to the individual needs and preferences of each student. Thus, in the future, visual content, whether it is part of learning materials, marketing materials or student services information, will be personalized.
- Social media and visual storytelling: Social media is becoming key for universities to communicate with students and other stakeholders. The trend towards visual storytelling, using visual content to convey messages and share the university's story, is likely to evolve in the future with the changing characteristics of social media.
- Sustainable and inclusive design: Universities will need to reflect values such as sustainability and inclusivity in their visual communication as public awareness grows. This may include the use of design elements representing diversity and respect for inclusion, ensuring visual content is accessible to people with disabilities, and implementing environmentally friendly design practices.
- Integrating artificial intelligence and machine learning: These technologies have the potential to focus significantly on visual communication by automating visual content creation processes, personalizing visual experiences, and analyzing the effectiveness of visual communication strategies, shaping the future of visual communication in higher education.

This field is rapidly evolving and ever-changing, necessitating ongoing research for a more detailed understanding of future directions in visual communication in higher education. It is important to note that these trends must be analyzed in the context of each higher education institution's brand and market position. The use of such strategies should be applied in harmony with the overall brand and reputation building strategy of the institution in order to maintain a consistent and effective communication approach.

#### 5. Conclusion

In the context of the learning process, well-executed visual communication helps to improve learning outcomes. By transforming complex concepts into more accessible ones, responding to different learning styles, overcoming language barriers, enhancing online learning and encouraging creativity, visual aids can significantly improve teaching and learning.

The future of visual communication in higher education will be characterized by technological innovation, personalisation, social engagement and a strong focus on inclusivity and sustainability. By staying abreast of these trends and actively incorporating them into their visual communication strategies, higher education institutions can improve their engagement with students and other stakeholders, thereby strengthening their brand identity and positioning themselves effectively in the competitive education environment.

#### References

- Bamford, Anne. The Visual Literacy White Paper. Adobe Systems Pty Ltd, Australia, 2003.
- Green, David. Using Digital Images in Teaching and Learning: Perspectives from Liberal Arts Institutions. Academic Commons, 2006.
- Information Literacy Competency Standards for Higher Education. Association of College & Research Libraries, 2000.
- 4. Hemsley-Brown, J., & Goonawardana, S. (2007). Brand harmonization in the international higher education market. Journal of Business Research, 60(9)
- Ilieva, S., Graphic design the contemporary art of visual communication, KSI Ltd, Plovdiv 2015

- Brown, Robert M., and Timothy William Mazzarol. "The importance of institutional image to student satisfaction and loyalty within higher education." Higher education 58 (2009).
- 7. Chanlin, L. (1997). The effects of verbal elaboration and visual elaboration on student learning. International Journal of Instructional Media, 24(4).
- 8. Williams, V. S., & Dwyer, F. (1999). Effect of metaphoric (visual/verbal) strategies in facilitating student achievement of different educational objectives. International Journal of Instructional Media