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Evaluation of Visual Aesthetics and Communication Effectiveness in Digital Advertising

ABSTRACT

Digital advertising requires visual content that simultaneously attracts users and effectively communicates information. While aesthetic quality is commonly regarded as an essential component of graphic design, its relationship with communication effectiveness has not yet been sufficiently investigated through empirical user studies. This research experimentally compares two contrasting design strategies: a design-oriented approach emphasizing visual aesthetics and an advertising-oriented approach prioritizing communication efficiency. Following an analysis of contemporary design practices, twenty advertisements covering ten thematic categories were created according to both approaches. User perception was evaluated through a structured survey measuring both message comprehension and visual attractiveness. The experimental results reveal that advertisements designed according to advertising principles consistently achieve higher communication effectiveness. Unexpectedly, these advertisements also receive higher aesthetic ratings than those designed primarily according to visual refinement. The findings indicate that communication clarity has a stronger influence on users' overall evaluation than aesthetic sophistication alone. The study contributes to a better understanding of visual communication in digital media and provides practical recommendations for balancing aesthetics and communication performance when designing digital advertising content.

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KEY WORDS
Graphic design, digital advertising, visual communication, user experience, visual perception

1. Introduction

Digital media combine technological platforms with visual, textual and audiovisual content and enable interactive, two-way communication. Their accessibility and cost-efficiency have made them central to contemporary communication and marketing (Price, 2025). As digital communication has expanded, graphic design has become more than an aesthetic addition: it functions as a strategic means of organising information, building brand identity and supporting user interaction (Bočaj & Ahtik, 2023; Interaction Design Foundation, 2025; Galvan, 2026). Visual content is particularly important in digital advertising because images, typography, colour, composition and other graphic elements must attract attention while also communicating a message clearly. Effective digital content therefore depends on understanding the target audience, selecting appropriate graphic elements, maintaining brand consistency, adapting content to platforms and aligning visual decisions with communication and conversion goals (British Academy of Graphic Design, 2026; Dot iT, 2024).

Graphic design and advertising can nevertheless emphasise different priorities. A design-oriented approach may place visual quality, aesthetic refinement, innovation and user experience at the centre, whereas an advertising-oriented approach prioritises message clarity, user response, direct communication and campaign effectiveness.

In practice, successful digital communication requires a balance between these objectives.

The aim of this study was to examine how these two approaches affect message comprehension and visual preference. Three hypotheses were evaluated:

- H1, that an analysis of existing design examples can be used to establish criteria for quality-oriented and effectiveness-oriented advertising design;
- H2, that advertisements designed for communication effectiveness transmit their message more successfully than advertisements designed primarily for visual quality;
- H3, that visually refined advertisements are preferred by users over effectiveness-oriented advertisements.

2. Methods

2.1. Design approaches and stimulus development

Before producing the experimental material, examples of good practice in graphic design and advertising were analysed. These examples were divided into two groups: design-oriented examples focusing on visual attractiveness, aesthetics and quality, and advertising-oriented examples focusing on usability, effectiveness, functionality and successful communication. The analysis included contemporary identities, information design and advertising campaigns, including award-winning work (Marketing Magazin, 2022; Velkavrh, 2024; Hilder, 2025; Coggan & Wilson, 2025).

Based on the analysis of good-practice examples, the two approaches were operationalised through distinct sets of design priorities. The design-oriented approach primarily emphasised visual quality, aesthetic refinement and originality. In this condition, graphic elements such as colour, typography, composition, imagery, negative space and visual hierarchy were treated as central components of the advertisement. Greater emphasis was placed on creating a visually coherent and distinctive composition, while the communication of the advertising message could be more subtle or indirect. The visual solution was therefore not necessarily structured around the immediate recognition of the advertised product or service. Instead, the approach allowed greater freedom for experimentation, interpretation and innovative visual expression. Success was understood primarily in terms of the overall aesthetic quality, originality and visual impact of the final design.

In contrast, the advertising-oriented approach prioritised communication effectiveness and the ability of the advertisement to convey its intended message quickly and clearly. Visual elements were selected and organised primarily according to their contribution to message comprehension rather than their independent aesthetic value. Particular attention was therefore given to clear visual hierarchy, easily identifiable products or services, concise textual information and direct communication with the target audience. Where appropriate, advertisements also incorporated a clearly visible call to action (CTA) to guide users towards the intended response. Compared with the design-oriented condition, the relationship between imagery, typography and other graphic elements was consequently more functional: each element was expected to support the central message and reduce ambiguity. Success in this condition was associated with the clarity of the message, ease of interpretation, ability to attract and direct attention and the overall effectiveness of the advertisement in communicating its intended purpose.

The distinction between the two conditions did not imply that design-oriented advertisements were intended to be ineffective or that advertising-oriented advertisements disregarded aesthetics. Rather, the experimental distinction concerned the relative priority assigned to aesthetic expression and communication performance during the design process. This made it possible to examine whether advertisements developed primarily around visual quality would differ from those developed primarily around communication effectiveness in terms of both message comprehension and users' aesthetic preferences.

Twenty advertisements were created across ten thematic categories, with two advertisements per theme: one following design-oriented criteria and one following advertising-oriented criteria. Adobe Photoshop 2025 and Adobe Illustrator 2025 were used to create the advertisements. The experimental setup is shown in Figures 1–2.



» **Figure 1:** *Designed advertisements following design-oriented criteria*



» **Figure 2:** *Designed advertisements following advertising-oriented criteria*

2.2. Survey procedure

Two survey versions, A and B, were prepared. Survey A tested advertisements created according to design-oriented principles, while Survey B tested advertisements created according to advertising-oriented principles. Both surveys consisted of two parts. The first part evaluated message comprehension for the corresponding design approach. The second part was identical in both survey versions and directly compared aesthetic preferences for the design-oriented and advertising-oriented advertisements within each theme. Screenshots of the survey interface and evaluation questions are presented in Figures 3–5.



» **Figure 3:** *Steps of the first part of Survey A*



» **Figure 4:** *Steps of the first part of Survey B*



» **Figure 5:** *Steps of the second part of both surveys*

The surveys were conducted in person. The advertisements were projected on a large screen in a slightly darkened room, while respondents recorded their answers on printed questionnaires. During the comprehension task, each advertisement was displayed for four seconds before respondents answered what the advertisement promoted. During the preference task, paired advertisements remained visible without a fixed time limit so that participants could compare them before selecting the version they preferred.

A total of 94 respondents participated, with 47 assigned to Survey A and 47 to Survey B. Across the full sample, 52% were women and 48% men. Thirty per cent were aged 18–25, 18% were 26–35, 20% were 36–50 and 32% were over 50. Seventy-eight per cent used social media daily and 65% reported noticing online advertisements very often. Most respondents (79%) did not work in media or media design, 10% did and 11% reported partial involvement. Responses were entered and analysed in Microsoft Excel.

3. Results

3.1. Message comprehension

Both design approaches produced predominantly correct responses, but the advertising-oriented condition achieved a higher overall comprehension rate. In Survey A, 89% of responses to design-oriented advertisements were correct, compared with 93% in Survey B for advertising-oriented advertisements. This result supported H2: advertisements structured around communication effectiveness conveyed their messages more successfully.

Table 1
Overall message-comprehension results for the two design approaches

Condition	Participants	Correct responses	Incorrect responses
Design-oriented (Survey A)	47	89%	11%
Advertising-oriented (Survey B)	47	93%	7%

Gender differences were small. In Survey A, women answered correctly in 90% of cases and men in 88%; in Survey B, the corresponding values were 92% and 94%. The study therefore did not identify a meaningful gender-related difference in advertisement comprehension.

Some differences emerged when respondents were grouped according to their involvement with media and design.

In Survey A, respondents identified as designers achieved 96% correct answers, compared with 85% among lay respondents. In Survey B, both lay respondents and designers achieved 93% correct answers. Consequently, the advertising-oriented approach performed better among lay respondents and those partially involved with media, whereas designers achieved their highest comprehension scores with the design-oriented advertisements.

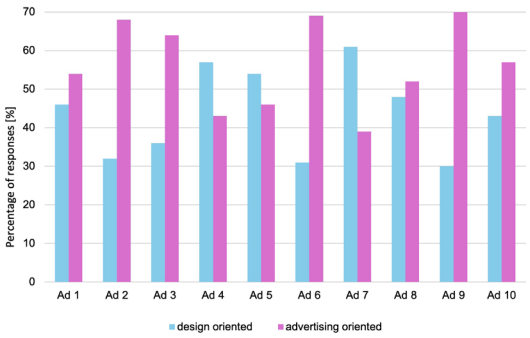
3.2. Aesthetic preference

The second part of the survey directly compared paired advertisements from the two approaches. Advertising-oriented advertisements were preferred in seven of the ten thematic comparisons (advertisements 1, 2, 3, 6, 8, 9 and 10), while design-oriented advertisements were preferred in three comparisons (advertisements 4, 5 and 7). Across all comparisons, 56% of selections favoured the advertising-oriented version and 44% favoured the design-oriented version.

Table 2
Preference for design-oriented and advertising-oriented advertisements

Group	Design-oriented	Advertising-oriented
All respondents	44%	56%
Men	42%	58%
Women	45%	55%
Lay respondents	44%	56%
Designers	46%	54%

The same general preference was observed among men, women, lay respondents and designers. Men selected the advertising-oriented advertisements in 58% of comparisons and women in 55%; lay respondents selected them in 56%, and designers in 54%. These results contradicted H3, which predicted that visually quality-oriented advertisements would be preferred. The survey results comparing users' preferences for design-oriented and advertising-oriented advertisements are shown in Figure 6.



» **Figure 6:** *Preference for Design-Oriented and Advertising-Oriented Advertisements*

4. Discussion

The results indicate that communication clarity and visual appeal should not be treated as opposing objectives. Although the design-oriented condition was developed to emphasise visual quality, the advertising-oriented advertisements achieved both a higher comprehension rate and a higher overall preference score. This suggests that respondents' aesthetic evaluations were influenced not only by formal visual refinement but also by how immediately and clearly the advertisement communicated its purpose.

This interpretation is consistent with established principles of digital content creation, where visual elements are expected to support a clear goal, target audience and desired action rather than function independently of the communication task (Dot iT, 2024; British Academy of Graphic Design, 2026). Graphic design for user experience similarly requires a balance between aesthetics and usability, with typography, colour and layout adapted to users' needs and information structure (Interaction Design Foundation, 2025).

The difference in comprehension between the two conditions was relatively small—89% versus 93%—and both approaches performed well overall. The subgroup comparison also suggests that expertise may influence how visual information is interpreted: designers achieved 96% correct responses for the design-oriented advertisements, whereas lay respondents benefited more from the directness of the advertising-oriented approach. These observations support the value of designing for a defined audience rather than assuming that a single visual strategy will perform equally well for all users.

The findings should be interpreted in light of several limitations. The advertisements were created by one designer, so subjective design decisions may have affected individual comparisons. The sample of 94 participants limits generalisation, and the four-second exposure used for the comprehension task does not fully reproduce real-world digital media use. The operational distinction between 'quality-oriented' and 'effectiveness-oriented' design also depends on the criteria established from the selected good-practice examples. A broader analysis of reference material and a larger experimental sample could strengthen future studies. Despite these limitations, the study demonstrates the practical importance of integrating aesthetic and communication objectives. Contemporary digital environments require designers to respond to changing platforms, user expectations and communication goals while maintaining visual coherence and brand identity (Keyline Digital Design College, 2023; Kushwaha, 2023). The results suggest that clear hierarchy, direct messaging and functional visual choices can contribute not only to comprehension but also to perceived attractiveness.

5. Conclusions

This study compared design-oriented and advertising-oriented approaches to digital advertising, using twenty advertisements across ten themes, together with an in-person survey of 94 participants. The advertising-oriented advertisements produced a higher overall rate of correct message comprehension (93% versus 89%) and were more frequently preferred in direct aesthetic comparisons (56% versus 44%).

H1 was supported because the analysis of good-practice examples enabled the formulation of distinct criteria for the two approaches. H2 was supported because advertising-oriented advertisements communicated their message more successfully on average. H3 was rejected because respondents more often preferred the advertising-oriented advertisements rather than the visually quality-oriented alternatives.

The findings indicate that effective digital advertising depends on a balance between aesthetics and communication performance. Visual attractiveness remains important for gaining attention, but clear messaging, functional organisation and alignment with the communication objective also shape users' aesthetic evaluation. Digital content should therefore be designed so that visual quality supports, rather than competes with, the intended message.

6. Acknowledgments

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