Abstract
Design competitions are often thought as a tool for creating new trends and ideas, so they are widely used in various countries around the world to find good ideas. Participating in the design competition has become an evaluation index for critical teaching achievements of colleges and universities in Taiwan. A lot of design competitions have been included into the design curriculum. In the past ten years, students have achieved outstanding performances in the thematic advertising design competition, which has been recognized by academic fields. However, when students demonstrate excellent designing skills, does it really mean that the training involved in the design competition has the values and fit the goals of design education? And do the students really have good results in design education? These questions are worthy of further study. This project invites industry experts and academic advertising design scholars to understand the value and goals of designing educational talents. The results of the study can be used as a reference for future curriculum design.

Keywords: Advertising Design, Design Competition, Design Education, Project-Based Learning, Learning Effect
Introduction

In business, advertising awards are widely considered to be an indicator of creative performance, particularly the ability to produce well-designed advertisements (Helgesen, 1994; John, 2011). According to Tippins and Kunkel (2006), an advertising award has three implications: first, excellent leadership, operational capabilities, and advertisement planning ability of the winning advertising agency; second, the agency's ability in accurately conveying what the client intends through a creative advertisement that imbeds factors for success; and third, the possibility of creating bump factors through the award, which can solicit the attention and recognition of a third party, thereby generating a positive influence on the agency or the client. Hsu (2009), however, disagrees, arguing that advertising awards harmfully instils a utilitarian mindset among designers, where designers ought to instead be a social force that contribute to a country’s cultural vibrancy rather than a worker for corporate profit. Specially, in design education in particular, design competitions disrupt teaching plans and, in instilling a utilitarian mindset, undermines the purity and foresight of design education. In general, researchers disagree on the benefits and harms of student participation in design competitions. Nevertheless, the Ministry of Education in Taiwan has actively promoted design competitions among domestic design students, in the hopes of having them participate in international-level competitions. This is part of the Ministry’s goal of cultivating internationally recognized talent in art and design (Laws and Regulations of the Ministry of Education, 2018).

Design competitions are often regarded as a tool for establishing new trends and concepts, and countries use them to source for excellent ideas (Meir, et al., 2016). For design departments in Taiwan, participation in design competitions is a crucial indicator of teaching performance. Thus, many design competitions have been integrated into design curricula, and teachers guide students in their participation in design competitions. Of the international design competitions, the Times Young Creative Awards and D&AD New Blood Awards are project-based advertising competitions. The competition theme is set by business owners, who provide a clear design brief outlining actual business objectives that student participant must meet through design. Design educators should thus investigate whether the incorporation of such advertising competitions into advertising design courses (1) facilitates design students’ ability to apply theory and knowledge to practice, (2) improves students’ teamwork abilities, (3) tests students’ ability in resolving conflicts within the design team, (4) stimulates students’ motivation to learn and express themselves, and (5) enhances students’ ability in integrating different skills across different subdomains of design (de-Juan, et al., 2016).

Thus, our research a) reviewed how the literature has conceptualized the values and goals of design education and b) conducted focus group interviews with scholars and business leaders. The research results aid talent cultivation in the education and practice of designers.
Literature Review

The value and ability cultivation of communication design education

Friedman (2012) argued that in the knowledge economy, professional design involves cross-disciplinary and multi-disciplinary knowledge, and design students should be trained accordingly. Poggenpohl (2012) proposed three things future design education must undertake: (1) ensure clarity in education goals and assessments of student performance; (2) pay attention to the dynamic changes and interconnections in current affairs; and (3) emphasize differentiation and research in graduate courses. According to Norman (2011), the contemporary role of designers is highly challenging: they must master not only traditional design skills but also have a grasp of human behavior, new media, and the latest technology—such as novel materials, sensors, displays, and means of communications. Thus, in addition to traditional design skills, design education should also hone observational and analytical skills and an awareness of new technology. Bennett and Vulpinari (2011) proposed nine abilities that future design education must cultivate: (1) self-reflection and critical thinking; (2) professional aptitude in 2D, 3D, and 4D design; (3) cross-cultural and transdisciplinary communication, for collaboration with others in the global market; (4) an awareness of the environment and the human, integrated into design knowledge; (5) quantitative and qualitative research skills, to frame and solve problems; (6) an ability to inspire through one’s professional practice; (7) analytical and communicative skills, honed in students through project design; (8) intellectual curiosity and a commitment to life-long learning; and (9) a concern with how one’s design practice impacts society.

Waarde and Vroombout (2012) proposed nine reflections for those formulating design education strategies: (1) consider visual configurations; (2) consider the situation; (3) consider the problem; (4) consider perspective; (5) consider modification for production; (6) consider evaluation and testing; (7) consider presentation and argumentation; (8) consider operational planning and execution; and (9) consider personal development.

Ho (2011) argued that design education exists to nurture design professionals, in particular their aptitude/attitude, knowledge, and skills. Design’s contribution is not merely superficial aesthetic or visual effects: it also creates value by enhancing the compatibility of interactive interfaces between human beings, machines, and environments; creating the identity of products, businesses, and cultures; and taking into consideration the universalness, sustainability, and disposability in design features. Wu, Chang, and Chen (2012) noted six abilities a designer must have: (1) analysis and judgment; (2) integration and planning; (3) professional aptitude, in being versed in the latest tools of the trade, such as drawing software; (4) creative thinking, in also being able to design with human nature in mind; (5) design management, which is the ability to plan and execute design projects and design activities; and (6) communication, in both the spoken and written word.

Overall, we distinguished design ability into seven dimensions, in which students must be trained in. These dimensions guide our subsequent analysis of the effectiveness of advertising design courses:
1. **Visual configurations:** this includes the three aspects of (1) visual elements, such as text design, image, color, and basic composition, graphic layout, and integration (as realized through drawing software); (2) visual strategies, involving the purpose of design and the form and structure of message presentation; and (3) visual dialogues, which involves understanding the needs of target customers.

2. **Design thinking:** this includes the three aspects of (1) design contexts, including the national, regional, lingual, economic, social, political, and force-majeure or natural factors that students must be trained to think holistically; (2) design problems, not only social and commercial ones but also ones that users face in the user interface (UI) and in their user experience (UX); and (3) design perspective, including technical, economic, aesthetic, and ethical issues in the visualization of design, where considerations of multiple perspectives spark creativity.

3. **Design fulfillment:** this includes the three aspects of (1) modification for production, where production processes, sales routes, and execution strategies can affect the performance of visual design and must thus be considered in the design process; 2) evaluation and testing, which determine the effectiveness of a design, and students must be trained to review the feasibility of a design from teacher or peer feedback; and 3) presentation and argumentation, which involves the ability to persuasively communicate proposals and arguments, where students must learn to support proposals with evidence, lay out the ideas supporting the design concept and visual design, and carefully consider each type of statement made in their proposals.

4. **Design management:** this includes planning and project management-encompassing the time, money, and personnel involved as well as the evaluation and monitoring of the design planning process.

5. **Design attitude:** this involves introspection, critical thinking, teamwork, responsibility, curiosity, and an awareness of the social and environmental impact of one’s design.

6. **Transdisciplinary learning:** this involves global market synergy as well as intercultural and interdisciplinary modes of communication.

7. **Pursuit of new knowledge:** lasting one’s whole life, this involves continually being conversant in new trends, theories, knowledge, and technologies in design.

**Advertising design competitions and brand strategy briefs**

Starting in 1992, China Times host professional advertising creative competitions in view of the rapid growth of the advertising industry in Taiwan. By doing so, the company hope to cultivate a spirit, titled “the fearlessness of youth,” in design students from different schools and stimulate their creativity (The 27th Times Young Creative Awards, 2018). The award, Times Young Creative Awards, has become the largest creativity award for students in the Chinese speaking region. The award is highly regarded by teachers and students of tertiary institutions in the field of advertising design and communication. Due to such high regard, this award is also dubbed the Oscar Award for young creatives (ARTouch, 2018). D&AD (Design and Art Direction) was founded in 1962 by a group of British designers and art directors...
in the advertising industry. As an educational public welfare organization, it serves creative fields, such as design and advertising. D&AD holds competitions for the two awards of the D&AD Professional Award and D&AD New Blood Awards. The annual theme of the D&AD New Blood Awards is formulated with well-known international brands, where student participants creatively design a solution to the problems stated in the design brief (New Blood Awards 2019, 2018).

The aforementioned awards differ from others in the industry-provided design briefs that student participants must present their ideas and solutions per the design requirements and problems outlined within. For example, the design briefs of the Times Young Creative Awards include information on the client, advertising theme, communication/marketing purpose, market profile, target audience, brand identity/image, communication tonality, publicity occasion/advertising timing/use specifications, recommended inclusion matters, and website and contact person (The 27th Times Young Creative Awards, 2018). The industry-provided information in the design briefs of D&AD New Blood Awards includes “what’s the back story?”, “what’s the challenge?”, “who are we talking to?”, “things to think about?”, “the important stuff”, and “what to submit and how?” (New Blood Awards, 2019, 2018). By participating in these competitions, students learn how business needs can be satisfied. Thus, whether students actually learn through the design process in these competitions is a noteworthy research question.

**Research method**

Focus group interviews were conducted to (1) understand the value of talent cultivation and the goals of communication design education as well as (2) understand the views of scholars and industry leaders on the implications of project-based advertising competitions on the cultivation of communication design talent.

**Sampling**

Through purposive sampling, we invited scholars (having >10 years of teaching experience in design) and design industry leaders (>5 years of practical experience) to a focus group interview. These scholars teach advertising design courses and have taught participants in the Times Young Creative Awards and D&AD New Blood Awards. The industry leaders have worked for various multinational advertising firms and have taught or evaluated advertising design contestants.

We finally recruited six scholars, who were teaching design in tertiary institutions in Northern, Central, Southern, and Eastern Taiwan and had each been doing so for 10–40 years. Three of the six scholars also had practical experience in the design industry. We also recruited four industry leaders, who each had 9-28 years of practical experience. They were working in advertising-related organizations in Northern Taiwan. One of the experts also had more than 10 years of experience in teaching advertising design.

**Measures**

The focus group interviews were held in two sessions, one for scholars and the other for industry leaders. The interviews were conducted at the meeting room of the
author’s institution. The interview duration was 2 h, and the interview was audio-recorded in its entirety for data analysis after obtaining the interviewee’s consent. Interview questions included (1) What values and abilities should be cultivated in advertising design education in the digital age? (2) What type abilities can students hone by participating in project-based advertising competitions? and (3) What is the value of project-based advertising competitions to communication design education?

Data processing

We audio-recorded the focus group interviews and then turned them into verbatim transcripts. The transcripts were encoded, decoded, and summarized according to the interview content to organize the main arguments made for each interview question. Subsequently, we noted how many times the interviewee posed a similar line of argument.

Results and Discussion

The eight abilities for the digital age to be cultivated among students of advertising design courses

Based on our literature review, we identified seven abilities that communication design ought to cultivate. The main arguments being made were semantically interpreted and categorized for quantitative analysis. Interviewee-proposed abilities that were not one of the seven abilities were classified under the eighth ability of “others” in the quantitative analysis. Because data under “others” were all related to storytelling and copywriting, the category of “others” was renamed as “narrative ability.” As detailed in Table 1, the abilities to be cultivated by digital-age design courses, from the most to least interviewees thinking so, are “design attitude (11 interviewees),” “design thinking (9),” “pursuit of new knowledge (8),” “visual configurations (6),” “narrative ability (5),” “design management (4),” “transdisciplinary learning (4),” and “design fulfillment (2).”
Scholars and industry leaders differed with respect to the abilities to be cultivated. Scholars emphasized design professionalization, design method, design fulfillment, design management, and transdisciplinary learning, whereas industry leaders emphasized design research, design attitude, and the pursuit of new knowledge. We think that this divergence is attributable to their work environment. Specifically, industry leaders are in a business environment and thus already have the abilities of design professionalization, design method, design fulfillment, design management, and transdisciplinary learning. Furthermore, the abilities of design research, design attitude, and the pursuit of new knowledge are necessary to surviving in their industry. By contrast, scholars constantly interact with students who have yet to grasp the fundamentals of advertising design. Therefore, scholars were more likely to emphasize the foundational abilities of professionalization, design method, design fulfillment, design management, and transdisciplinary learning to enable students to handle future challenges in the design industry.

<table>
<thead>
<tr>
<th>Item</th>
<th>Definition</th>
<th>Academia</th>
<th>Industry</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>visual configurations</strong></td>
<td>visual elements, font design, icons and images, colors, basic composition, drawing software, layout and integration; visual strategy; design purpose, form and structure of information presentation; visual dialogue; understanding the needs of communication objects.</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>design thinking</strong></td>
<td>design situation; comprehensive design thinking; design issues: social and market environment, how consumers use products, user interface and user experience; design perspective: creative thinking.</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td><strong>design implementation</strong></td>
<td>production revision, evaluation and testing, presentation, debate and communication</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>design management</strong></td>
<td>planning and project management, financial and time management, personnel cooperation, evaluation and monitoring in design planning process.</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>design attitude</strong></td>
<td>self-esteem attitude and critical thinking, include collaboration, responsibility, curiosity, emphasis on environmental and social awareness, design originality, intellectual property.</td>
<td>3</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td><strong>cross-domain learning</strong></td>
<td>the mode of global market synergy, intercultural and interdisciplinary communication</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>pursue new knowledge</strong></td>
<td>design trends, the learning of new knowledge and technologies, encourage students to learn for life.</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td><strong>narrative</strong></td>
<td>storytelling, copywriting ability</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
Enhancement of seven abilities among students through project-based advertising competitions

We grouped similar interview arguments with similar semantic meanings together. The statistical results revealed seven such groups of design abilities, which we term “innovation and design,” “analysis of industry needs,” “design thinking,” “project design implementation,” “expansion of design interactions,” “teamwork,” and “career building” (Table 2). In Table 2 also, both scholars and industry leaders thought that student participation in project-based advertising competitions hones the following skills, from the most to the least number of interviewees thinking so: “analysis of industry needs (9),” “innovation and design (6),” “design thinking (6),” “project-based design implementation (5),” “expansion of design interactions (5),” “career building (5),” and “teamwork (3).”

Table 2 Project-based Advertising Competition improves students' seven abilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Definition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>innovation and design</td>
<td>for example, the ability to execute ideas, expand the value of creativity, improve the ability to complete the design and production, self-affirmation, and show enthusiasm for design</td>
<td>6</td>
</tr>
<tr>
<td>analysis of industry needs</td>
<td>for example, understanding the products and consumers through the brief, understanding the industry's implement mode, the ability to analyze the brief, executing the design that meets the needs of the enterprise, understanding the market needs, and solving problems</td>
<td>9</td>
</tr>
<tr>
<td>design thinking</td>
<td>for example, stimulate imagination, improve the connection between design strategies and creative thinking, develop ideas according to needs, train the ability to think quickly, and understand the value of the creative derivative process</td>
<td>6</td>
</tr>
<tr>
<td>design project implementation</td>
<td>relevant practical projects and practical design, project integration, understanding the reality after work in advance, direction and norms, practical operation value, time control</td>
<td>5</td>
</tr>
<tr>
<td>expansion of design interactions</td>
<td>for example, observing the works of other schools, watching the works of others outside the school, the performance of students from other schools, and expanding the horizon of student design</td>
<td>5</td>
</tr>
<tr>
<td>teamwork</td>
<td>e.g. teamwork, communication</td>
<td>3</td>
</tr>
<tr>
<td>career building</td>
<td>the value of personal learning resume, accumulated experience, accumulated works, industry-academia integration</td>
<td>5</td>
</tr>
</tbody>
</table>

Six values of project-based advertising competition to communication design education

We grouped interview arguments with similar perspectives and semantic meanings together. The statistical results revealed six such groups of values that design education should emphasize, which we term “practical design experience,” “skill cultivation,” “teamwork,” “design professionalism,” “problem-solving,” and “classroom learning atmosphere” (Table 3). In Table 3 also, both scholars and industry leaders thought that student participation in project-based advertising competitions improves on the following values, from the most to the least number of
interviewees thinking so: “skill cultivation (9),” “practical design experience (7),” “design professionalism (6),” “problem-solving (5),” “teamwork (1),” and “classroom learning atmosphere (1).”

Table 3 The Six Values of Project-based Advertising Competition to Communicate Design Education

<table>
<thead>
<tr>
<th>Item</th>
<th>Definition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>practical design experience</td>
<td>improve the practical experience of advertising design, increase the experience of project design, train students to understand the industry and market situation, academia meets industry, understand design practice, accumulate design experience, and understand industry patterns.</td>
<td>7</td>
</tr>
<tr>
<td>skill cultivation</td>
<td>strengthen creative analysis and design integration, enhance design ability, empathize in design thinking, practice self-design ability, affirm self-design ability, stimulate creativity, understand self-design ability, understand self-design ability.</td>
<td>9</td>
</tr>
<tr>
<td>teamwork</td>
<td>let students understand the importance of teamwork.</td>
<td>1</td>
</tr>
<tr>
<td>design professionalism</td>
<td>Give students the opportunity to expand their horizons in design majors, allow students from many countries to communicate and observe and learn, outsiders, job interviews, plus bonus points for interviews, and winning awards are good for interview.</td>
<td>6</td>
</tr>
<tr>
<td>problem-solving</td>
<td>improve the ability to solve practical problems, be able to have your own ideas and opinions, seek harmony and problem-solving image expression capabilities, understand the design competition model, train problem-solving capabilities, and meet the needs of enterprises to solve problems.</td>
<td>5</td>
</tr>
<tr>
<td>classroom learning atmosphere</td>
<td>helps improve the learning atmosphere.</td>
<td>1</td>
</tr>
</tbody>
</table>

Conclusions

To recap, we invited scholars and industry leaders in the field of advertising design to focus group interviews. We did so to elucidate the value and goals of talent cultivation in communication design education. We conclude the following.

1. The digital age will transform traditional advertising operations, and advertising design education must change accordingly. Talent cultivation in digital advertising design must focus most primarily on design attitude. Because of the protean nature of the advertising industry, educators must emphasize a) the effect of design fulfillment on the social environment and b) that design goals can only be achieved through teamwork. Second, cultivating “design thinking,” which means making students think broadly and consider everything from the social and market environment, consumer behavior, and the UI and UX, thus enabling them to discover their unique creative voice. Third, encouraging the “pursuit of new knowledge,” which makes students stay abreast of design trends, new knowledge, and new technologies (e.g., AI, AR, and VR) throughout their lives. Fourth, a solid grasp of “visual configurations,” which hones students’ professional skills, including text design, image and color, basic composition, drawing software, graphic layout and integration, the form and structure
of message presentation, and the understanding of others’ needs through communication. Fifth, narrative skills, which help students tell a compelling story. Sixth, design management, which helps students execute a design project. Seventh, transdisciplinary learning, which helps students engage with people and ideas they have no formal training in. Eighth, design fulfillment, which equips students with knowledge of various media design product specifications and an ability to draft proposals and communicate their ideas.

2. Industry participation in and sponsorship of project-based advertising competitions: students must create designs based on the theme and the requirements dictated by sponsors. The interviewees thought that these competitions hone students’ professional and general abilities. Specifically, professional abilities include “analysis of industry needs,” “innovation and design,” “design thinking,” and “project design implementation.” General abilities include “expansion of design interactions,” “career building,” and “teamwork.” Foundational professional skills, such as adequate values, attitude, communication skills, teamwork skills, technological proficiency, problem-solving ability, creative thinking, and logical thinking are highly regarded in the design industry.

3. Project-based advertising competitions improve on the following values: “skill cultivation,” “practical design experience,” “design professionalism,” “problem-solving,” “teamwork,” and “classroom learning atmosphere.”

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“The Ministry of Education encourages students to participate in the main points of awards for art and design international competitions.” by The content of the regulations of the Ministry of Education: http://edu.law.moe.gov.tw/LawContent.aspx?id=FL039332.


**Contact email:** cjfang@mail.mcu.edu.tw