

**Article**

# Integration of Narrative Strategies in Poster Design Education for Southeast Asian Students

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**Abstract:** Owing to the proactive implementation of the New Southbound Policy, the proportion of Southeast Asian students studying in Taiwan is steadily increasing. They exhibit variations in perceptions, communication, and cultural backgrounds in learning. These differences often lead to confusion and challenges during the coursework. In this study, we integrate narrative strategies into poster design education, where professors teach students textual contexts to identify and solve problems, and ultimately integrate design knowledge and skills. We investigated the differences in the student's performance in poster design after the integration of narrative strategies and their reactions. Using a pre-experimental one-group pretest-posttest design with 40 Southeast Asian students, the 12-week experimental teaching was offered. Significant improvements in creativity, text composition, illustrations, layout, and color in poster design were observed after the period. The students could utilize transformation and metaphor as design techniques, demonstrating that integrating narrative strategies stimulated students' imaginative capacities. Such a result indicates significant efficacy in enhancing the learning experiences of Southeast Asian students.

**Keywords:** Narrative, Southeast Asian Students, Poster Design

## 1. Introduction

In 2016, the Taiwanese government introduced the "New Southbound Policy" for economic and trade cooperation, talent exchange, resource sharing, and regional connectivity. This policy aims to establish connections with 18 countries, including ASEAN, South Asia, New Zealand, and Australia by facilitating resource, talent, and market share with the countries for mutually beneficial relationships. In terms of education, the plan involves recruiting students from Southeast Asian countries to establish partnerships for sharing human resources. It emphasizes exchanges and collaborations among scholars, students, and industry professionals bilaterally (Executive Yuan, 2016). According to the Ministry of Education's statistics on overseas students in higher education institutions, the number of students from New Southbound countries studying in Taiwan has been increasing annually. Since 2011, the number of students from 18 countries reached 18,000, and in 2022, the number increased to 66,000. The top three countries were Vietnam, Malaysia, and Indonesia, accounting for 80%. Over the past five years, art and design-related disciplines have been popular choices for students from the countries (Department of Statistics, Ministry of Education, 2023).

Altbach et al. (2007) pointed out that globalization has a widespread impact on higher education systems, affecting aspects such as the economy, technology, and science. Kerka (1998) emphasized the need to meet global economic competitiveness standards through human resource development. In industries that prioritize deep aesthetics and knowledge concentration such as design, creating maximum efficiency and value with limited resources is crucial as the most significant key factor for human capital. According to Hung and Chang (2019), the main factors influencing Southeast Asian students to study in Taiwan were the following three reasons. The first was financial considerations as Taiwan offered generous scholarships. The second was geographical advantages with convenient transportation and proximity to their home countries and the catalyzing effect of the New Southbound Policy on student exchange. Besides Taiwan's mature higher education system, the diverse choices of professional disciplines, government encouragement for professionals to stay in Taiwan, and the current generation's proficiency in information development contributed to the reasons for Southeast Asian students choosing Taiwan to study. In fields such as information, media, web design, visual arts, and programming, there is a high demand for talent.

Design education focuses on developing design skills and knowledge transmission by addressing individual differences in talent, aptitude, and abilities. It is crucial to cultivate professionals who can acquire design knowledge, apply skills for innovative problem-solving, and explore diverse possibilities in design guidance based on students' potential, qualifications, and capabilities. Researchers have identified, through years of observation in classrooms, a trend among Southeast Asian students in their design performance. The students often exhibit a lack of imaginative space and a rigid expression of creative thinking. This limitation is evident in aesthetics, layout, composition, color, typography, proportion, and texture. As a result, their design works tend to be intuitive, concrete, and stiff, lacking adaptability in solving design problems. This leads Southeast Asian students to lack confidence in their work. In the classroom, design education extends beyond skills; it includes an understanding of design principles and methodologies through discussions and applications. Thus, we aimed to design teaching methods tailored to the challenges of students to enhance their design ability, improve students' aesthetic sensibilities, and increase their confidence in design capabilities.

Narratives exist in various dimensions as a medium for teaching and promotion. They contribute to cultural inheritance and record events at different points in time (Colins & Cooper, 1997). Guided by instructors and employing interactive and exploratory learning approaches, students can understand and solve design problems. This approach helps students accumulate the ability to integrate practical design skills, complete tasks collaboratively, and mature and independently execute the production of relevant graphic visual works. It facilitates the students' familiarity with the creative thinking process, a crucial aspect of design-oriented learning (Lo, 2021). The integration of narrative techniques in teaching potentially enhances communication, utilizing storytelling as a potential catalyst for problem-solving. Students can strengthen their ability to integrate and plan a comprehensive story context collaboratively. This approach needs the precise interpretation of rules in the design process, possibly improving their problem-solving skills. The introduction of narrative strategies generates new ideas and expands the imaginative space through cognitive processes. By harnessing information from these imaginative exercises, students can create visually compelling design works and effectively apply various design elements.

Polkinghorne (1995) stated that narrative exists in the form of discourse and encompasses prose and story in qualitative research. The act of storytelling involves the construction of organized trigger points and contexts, sequentially recording human activities over time. Narration belongs to various genres to systematically describe texts, images, events, etc. to understand and analyze. Narrators create stories through the use of language, sound, images, and related media, logically connecting them over time. This connection enables listeners to understand the stories. In the narrative process, the chronological order is meticulously arranged for the allocation of materials based on time from different perspectives. The materials in the story are symbolic and are created by the storyteller (Bal, 2009). Thus, it is necessary to connect situations experienced over time with their research subjects to study life experiences and orally transmitted stories. Narration includes elements such as protagonists, content, background, and dialogue which organize and structure the entire story in an organized manner, facilitating an understanding of the context and background of events and serving as a bridge for effective communication.

In aesthetics, storytelling is synonymous with narrative design. Constructed through imagination, art, and literature throughout human history. Narrative design reshapes individual memories using text, sound, form, and imagery. Stories, which may be real, anticipated, or fictional, feature abstract and concrete symbols, thereby enriching emotional content in various expressions such as art, literature, and design. Narrative design extends beyond the finished product and the form of creation, transforming stories and culture in design through metaphorical methods (Yang, 2009). In the design process, space is recognized as a vital perceptual realm for consciousness, encompassing visual, auditory, and tactile senses. Visualization is achieved through the application of various techniques, thereby connecting stories through visual aesthetics. In 1997, Lauritzen and Jaeger proposed a narrative curriculum model integrating learning through storytelling. This model prompts students to engage in repeated reflection, identify problems within the narrative context, take action, and solve these problems. Their narrative curriculum plan comprised the following key components; (1) text context: this involves establishing a context to link stories, thereby creating new meaning and forming rules by incorporating both context and personal experiences; (2) inquiry: It poses questions to explore problems and confirm whether these problems align with the set objectives; (3) goal filtering: This step reflects the context and problem to ensure their continued relevance; (4) exploration activities: In this phase, learners engage in investigative, research, and analytical activities, attempting to discover new opportunities; (5) endpoint activities: This final component involves sharing the results of exploration activities, presenting findings, and interacting with others.

The employment of a narrative curriculum allows professors and students to collaboratively explore stories and construct meaningful learning experiences. Guided by professors, students are encouraged to integrate their personal experiences into the context, internalize concepts, organize them, acquire new knowledge, and enhance their problem-solving abilities. Therefore, the narrative approach in the curriculum amplifies opportunities for inquiry-based learning, where concepts are visualized through aesthetics in an iterative process of exploration and discovery.

A poster is a graphic media design project that employs visual information using images, text, colors, or symbols to convey information to viewers. Poster design is a soulful expression of creativity with effective creativity successfully conveying information through design. The audience interprets the conveyed content through elements such as images, text, color, symbols, etc. The poster is a form of visual communication design and needs a balance of aesthetics and functionality by arranging information using images, text, and color (Lin, 1986). In visual design, posters are the most widespread and popular promotional tools. They employ visual elements such as images, text, color, and space, creating condensed and artistic presentations. Posters possess aesthetic appeal and memory points, making them significant in information dissemination. Printed posters become less popular with the digital evolution as digital posters have become prevalent in various forms. Through diverse presentations, digital posters tell stories, conveying events, emotions, and inspiration (Su, 2003). Early poster designs focused on capturing attention and memory, while modern posters emphasize aesthetic concepts. They efficiently convey messages through concise and orderly visual presentations (Chang, 2001). With the evolution of digitization influenced by internet technology, the popularity of printed posters has waned. On the contrary, digital posters are becoming more widespread, therefore, we studied them in a poster design course.

In this study, we explored the implementation of narrative strategies in design education, specifically for Southeast Asian students, and evaluated their learning outcomes. We also investigated the impact of the strategies in design courses in actual teaching scenarios. The findings provide insights for design-related courses for Southeast Asian students. In this study, we carried out a project with a narrative-based strategy for teaching poster design to Southeast Asian students and explored its effectiveness. Secondly, we examined the students' performance and potential skill improvements. Thirdly, we evaluated the learning outcomes and the impact of the strategies on their learning process.

**2. Materials and Methods**

*2.1 Research Methods*

We explored the application of narrative strategies in teaching poster design to Southeast Asian students. A literature review was conducted to examine relevant theories and research, consolidate a teaching model for narrative strategies in design courses, and outline the implementation steps and comparative and content analysis methods. We investigated the variations in poster design outcomes among the first-year Southeast Asian students before and after implementing narrative strategies. We used a pre-experimental design with a one-group pretest-posttest configuration to assess the learning effectiveness of narrative strategies. Design experts were invited to evaluate the posters created to determine the differences and effectiveness. The posters at various stages were assessed to observe shifts in performance before and after teaching narrative strategies. Following the course, a survey was conducted to collect feedback on the learning experiences. In the instructional intervention, advocacy-type posters with a non-profit purpose were used to allow creativity without commercial activities.

*2.2 Research Design*

Due to the limited number of Southeast Asian students, it was not possible to have an experimental and control group. Therefore, a one-group pretest-posttest design was employed for a twelve-week teaching experiment. To assess the learning effectiveness of students, a pretest was conducted. After the narrative strategy instruction, a posttest was performed on the same poster design. By the experts, the students' work was assessed for the elements of poster design including text, imagery, color, and layout were evaluated. The experimental design is outlined in Table 1.

**Table 1.** Research Experimental Design

Experimental Design	Pretest	Experimental Treatment	Posttest
One-Group Pretest-Posttest Design	O <sub>1</sub>	X	O <sub>2</sub>

(O<sub>1</sub>: Represents the pretest scores of the research subjects before receiving “Narrative Strategy-Infused Design Teaching for Pretest Poster Design.”

X: Indicates the experimental treatment, where research subjects undergo twelve weeks of teaching with the integration of narrative strategy.

O<sub>2</sub>: Depicts the posttest scores of the research subjects after receiving “Narrative Strategy-Infused Design Teaching for Posttest Poster Design”.)

*2.3. Subjects and Experts*

The subjects were the first-year Southeast Asian students majoring in design at a university in northern Taiwan, enrolled in a computer graphics course. The participants included 33 Malaysians, 1 Indonesian, 2 Vietnamese, and 4 Myanmar. One participant studied design-related courses, two received tutoring in computer graphics software, and four had self-taught computer graphics software. A questionnaire was created to assess their design-related training.

For the assessment of design works, a panel of 20 design experts was invited. Ten experts from the industry with substantial practical experience ranging from 11 to 26 years. Professionals such as 3D animation directors, visual designers, graphic designers, art assistant directors, and visual merchandisers were included in the expert group. The other ten experts had teaching experience spanning 11 to 43 years in digital media design, product design, visual communication design, and commercial design.

#### 2.4. Instruction Plan

To examine whether the introduction of narrative strategy in teaching enhanced the performance and effectiveness of Southeast Asian students in poster design, we conducted phased experiments over 18 weeks in a semester. The initial six weeks was assigned to software and technical learning, while the narrative strategy course was taught in the rest 12 weeks. In each four-week period, poster design tasks were conducted by students to complete four experiments and submit their poster designs every week. The assigned tasks centered on campus advocacy themes: environmental poster design, traffic safety poster design, and information security poster design. In each period, different design tasks were introduced with two environmental poster designs (Tasks 1 and 4). Task 1 was assigned before narrative strategy teaching, while Task 4 last was completed after it. The two poster design tasks served were compared to evaluate the pre- and post-narrative strategy poster design.

The instructional strategy of the narrative strategy in design courses was developed based on a literature review. Following the curriculum plan proposed by Lauritzen & Jaeger (1997), the design teaching strategy was structured. Before deploying narrative strategy, students analyzed the design tasks and problems, establish scenarios, and define designs. The students considered the characteristics of design programs, the instructional model incorporated example observation, sketching, color sketching, and final refinement. Through explanations, student engagement, practical exercises, guided instruction, and interactive training, strategies were discussed, and feedback was provided to clarify and address issues observed in poster design. The instructional strategy consisted of six stages: (1) Example Observation, (2) Exploration Activities, (3) Endpoint Activities – focusing on inspiring imagination, conducted collectively; (4) Sketching, (5) Color Sketching, (6) Final Refinement – emphasizing monitoring of execution, conducted through individual discussions between professors and students. After establishing the narrative strategy in design teaching, the instructional process was offered as follows.

1. Example Observation- visual transformation using award-winning and outstanding design works from domestic and international competitions: Through visual stimulation, analysis, and appreciation, students are encouraged to explore new concepts, shift thinking directions, and develop creative ideas.
2. Exploration Activities- creative brainstorming sessions, utilizing mind-mapping and mandala techniques: Through interactive discussions, students conceptualize and explore more feasible or alternative solutions, fostering divergent creative thinking and inspiring mutual imagination.
3. Endpoint Activities- concept convergence by recombining different ideas: After filtering, eliminating off-topic combinations, and removing low-relevance links, the focus is narrowed down to the creative core, achieving a convergent effect to reach the ultimate goal.
4. Sketching- visualization of concepts: Emphasizing training in image and layout application, students present creativity and concepts visually. Abstract ideas are transformed into concrete visual representations using various forms such as pure illustration, images, composite media, etc. Principles of visual composition such as repetition, gradient, symmetry, balance, harmony, contrast, proportion, rhythm, simplicity, and unity are integrated into the overall planning of images, lines, styles, proportions, etc.
5. Color Sketching- computer-based color sketching: This stage emphasizes text and color application. Drawing is done using software, incorporating the main title of the design into the process. Text training involves font, style, thickness, size, spacing, line spacing, position, etc. Fundamental color concepts such as analogous colors, contrasting colors, split complementary colors, triadic colors, rectangular color schemes, etc., are introduced as part of color coordination training.
6. Final Refinement- design refinement: This stage involves in-depth processing of the complete design, focusing on aspects such as texture, light and shadow representation, and three-dimensionality. The overall poster details are enhanced to achieve the best visual and textual state as the final goal. The implementation plan for introducing narrative strategy in poster design teaching is illustrated in Fig. 1.

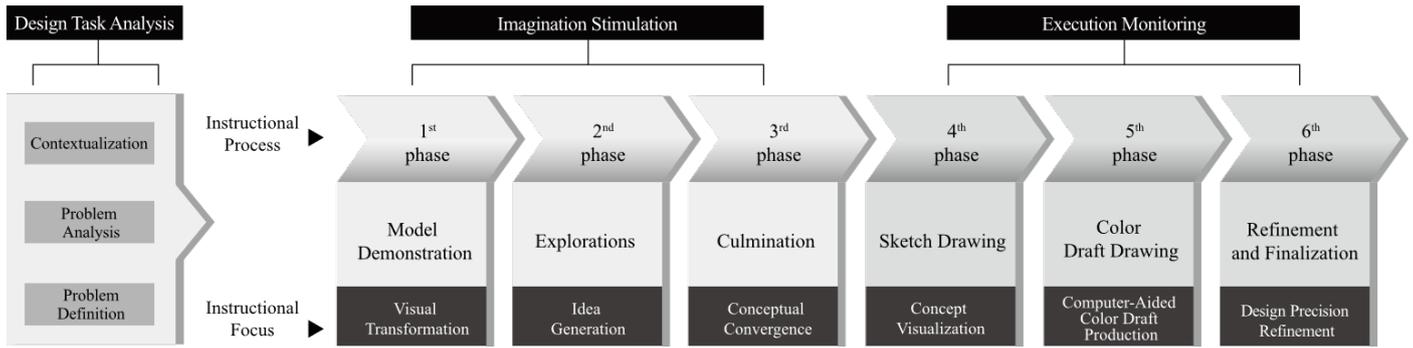


Fig. 1. Implementation plan of narrative strategy in poster design teaching.

2.5. Evaluation Method

Absence and incomplete assignments were excluded, resulting in the collection of 40 complete poster designs from students (20 sets). The evaluation of these designs was conducted by the invited experts for text, graphics, color, and layout. Each poster was scored to assess improvements in poster design after the implementation of narrative strategy teaching. The experts scored from 1 to 10 with 1 being the lowest and 10 being the highest. The sum of scores for each item constituted the total score. A dependent t-test was employed to analyze the distribution and differences in the pre-test and post-test to analyze the impact of narrative strategy teaching. Furthermore, open-ended questions were asked to the experts to select the most outstanding poster from the 40 submissions and provide written justifications for their choices. A comparative analysis was then conducted between the results of the expert evaluations and the student’s scores.

3. Results

3.1. Learning Outcomes

Expert evaluations and student feedback were organized and summarized. Subsequently, relevant data was analyzed. The pretest and posttest survey results are shown in Table 2. Each design was evaluated based on the total score and elements such as text, graphics, color, and layout. A dependent paired-sample t-test was performed on the scores given by the 20 experts.

Table 2. Dependent paired-sample t-test of Pretest and Posttest Design Evaluation

Group	Layout				Text			
	Mean	SD.	t-value	p-value	Mean	SD.	t-value	p-value
No. 01-1 & 01-2	0.90	2.02	1.98	0.061	.75	2.14	1.56	0.135
No. 02-1 & 02-2	0.65	1.42	2.04	0.055	.55	1.27	1.92	0.069
No. 03-1 & 03-2	0.20	2.64	0.33	0.739	.25	2.35	.47	0.641
No. 04-1 & 04-2	0.40	1.84	.96	0.345	.55	1.46	1.67	0.110
No. 05-1 & 05-2	0.75	1.61	2.07	0.052	.80	2.41	1.47	0.156
No. 06-1 & 06-2	3.05	1.46	9.29	0.000***	3.00	1.52	8.81	0.000***
No. 07-1 & 07-2	0.25	1.16	0.96	0.349	.25	1.44	.77	0.449
No. 08-1 & 08-2	0.90	1.80	2.23	0.038*	.90	1.41	2.85	0.010*
No. 09-1 & 09-2	2.80	1.93	6.46	0.000***	2.70	1.59	7.58	0.000***
No. 10-1 & 10-2	2.25	1.11	9.00	0.000***	2.80	1.36	9.20	0.000***
No. 11-1 & 11-2	0.70	1.41	2.20	0.040*	.40	1.63	1.09	0.288
No. 12-1 & 12-2	2.60	1.35	8.59	0.000***	2.55	1.60	7.10	0.000***
No. 13-1 & 13-2	0.35	0.74	2.10	0.049*	.60	.99	2.69	0.014*
No. 14-1 & 14-2	1.05	2.64	1.77	0.092	2.00	2.55	3.50	0.002*
No. 15-1 & 15-2	2.30	1.65	6.20	0.000***	2.15	1.46	6.58	0.000***
No. 16-1 & 16-2	2.40	1.31	8.16	0.000***	2.05	1.23	7.42	0.000***
No. 17-1 & 17-2	2.15	1.26	7.58	0.000***	2.00	.97	9.18	0.000***
No. 18-1 & 18-2	0.70	1.62	1.92	0.069	.85	2.03	1.87	0.077
No. 19-1 & 19-2	2.50	1.14	9.74	0.000***	2.55	1.05	10.86	0.000***
No. 20-1 & 20-2	2.25	0.96	10.41	0.000***	2.50	1.23	9.05	0.000***
	Graphics				Color			

Group	Mean	SD.	t-value	p-value	Mean	SD.	t-value	p-value
No. 01-1 & 01-2	0.95	2.25	1.88	0.075	0.80	2.14	1.67	0.111
No. 02-1 & 02-2	0.35	1.08	1.43	0.167	0.25	0.96	1.15	0.262
No. 03-1 & 03-2	0.15	2.36	0.28	0.780	0.45	2.39	0.84	0.411
No. 04-1 & 04-2	0.45	1.60	1.25	0.225	0.50	1.35	1.64	0.116
No. 05-1 & 05-2	0.80	1.57	2.27	0.035*	0.95	1.73	2.45	0.024*
No. 06-1 & 06-2	3.20	1.47	9.71	0.000***	3.00	1.25	10.67	0.000***
No. 07-1 & 07-2	0.35	0.87	1.78	0.090	0.50	0.94	2.36	0.029*
No. 08-1 & 08-2	0.90	2.02	1.98	0.061	0.60	1.53	1.74	0.097
No. 09-1 & 09-2	3.05	1.39	9.78	0.000***	2.30	1.45	7.07	0.000***
No. 10-1 & 10-2	2.50	1.23	9.05	0.000***	2.50	1.39	8.01	0.000***
No. 11-1 & 11-2	0.85	1.69	2.24	0.037*	0.25	1.44	0.77	0.449
No. 12-1 & 12-2	2.85	1.46	8.72	0.000***	2.35	1.63	6.44	0.000***
No. 13-1 & 13-2	0.15	0.74	0.90	0.379	0.45	1.19	1.69	0.107
No. 14-1 & 14-2	0.60	1.93	1.39	0.181	1.45	2.41	2.68	0.015*
No. 15-1 & 15-2	2.35	1.59	6.57	0.000***	2.00	1.71	5.21	0.000***
No. 16-1 & 16-2	2.35	1.34	7.79	0.000***	2.05	1.39	6.57	0.000***
No. 17-1 & 17-2	2.25	1.29	7.78	0.000***	2.10	1.37	6.84	0.000***
No. 18-1 & 18-2	0.90	1.80	2.23	0.038*	0.80	2.30	1.55	0.138
No. 19-1 & 19-2	2.45	1.14	9.56	0.000***	2.40	1.23	8.71	0.000***
No. 20-1 & 20-2	2.40	1.14	9.39	0.000***	2.25	1.02	9.86	0.000***

\* $p < 0.05$ , \*\*\* $p < 0.001$

The average scores after the implementation of narrative strategy teaching in the course showed a significant improvement in approximately 70% of the works. Nearly half of the works exhibited outstanding progress. The dependent paired-sample t-test results showed that for the textual element, 12 sets of works showed a significant improvement; for the graphic element, 12 sets of works showed a significant improvement; for the color element, 12 sets of works showed a significant improvement; for the layout element, 14 sets of works showed a significant improvement. The assessment results for each element aligned with the significant improvement in the total scores. Significant improvements were observed in text (60%), graphics (60%), color (60%), and layout (70%). The introduction of narrative strategy into poster design teaching enhanced the learning outcomes for Southeast Asian students. One outstanding poster was selected by experts, and content analysis was employed to explore their responses. The experts agreed anonymously that the post-test works following narrative strategy teaching were superior. Text, graphics, and layout were mentioned five times, while color and creativity were mentioned six times. Notably, experts highlighted the use of metaphorical techniques four times, indicating the effectiveness of the narrative strategy in guiding students to employ transformation and metaphor as design techniques. The posters showed the enhanced application of various design elements and creativity, inspiring limitless imagination in students. The positive responses from experts confirmed the significant effectiveness of the teaching approach (Table 3).

Table 3. Excerpts from Expert Comments

Design Elements	Occurrences	Expert Comments
Text	5	Appropriate text pairing; text highlights effectively; suitable text size and layout, not overpowering; adequate text size; thoughtful text design without overshadowing the visual focus. Clear and well-chosen graphics; mature visual design techniques; clear and distinct imagery with a unique style; clear lines with a well-defined thematic representation; simple graphics yet with clear and distinct imagery.
Graphics	5	Overall harmonious and aesthetically pleasing composition; effective arrangement and configuration of the visuals; appropriate structure in graphic and textual design; simple yet well-structured composition; coordinated composition, effective use of visual elements.
Layout	5	Striking color tones; bold and vivid color use with consistent coordination; avoids monotony in color combinations; simple coloration enhances the theme; rich and delicately handled color palette.
Color	6	Rich imagination; innovation and a unique sense; innovative elements used correctly; creative use of familiar Taiwanese beverage as design material; clear design concept; creatively distinctive, intriguing repeatedly.
Creativity	6	

Technique Application	4	Metaphorical expressions conveying narrative content; rich imagination, using metaphorical techniques to bring out the theme; expressing the theme using metaphorical techniques with clear and distinct imagery; employing metaphor and transformation techniques to bring out the topic.
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### 3.2 Narrative Strategy Teaching Affecting Poster Design Performance

We used a staged approach to assign design tasks and monitor the student’s progress in learning. Students articulated their conceptual ideas alongside completing poster designs. The analysis was based on the four major elements in poster composition—text, graphics, color, and layout. The result showed the following.

1. Text: Posters with the narrative strategy showed a diversification in font and the positioning of text exhibited dynamic lines. Text was no longer confined to the center; rather, emphasis was achieved through indicative color tones or bold fonts, capturing the viewer’s attention and efficiently conveying information.
2. Graphics: Without strategy implementation, posters featured rigid illustrations. With it, there was a shift towards diverse drawing styles, incorporating image synthesis to create an atmosphere. The use of shadow to accentuate themes added depth and layers to the overall imagery and showcased graphic techniques.
3. Color: Posters predominantly showed low saturation and monochromatic color tones without the strategy. However, with it, posters embraced contrasting colors, rectangular color schemes, and proportional color area configurations, enhancing visual harmony and overall attractiveness.
4. Layout: Presentations were intuitive with the strategy. Designs incorporated principles from the ten basic elements of design, such as contrast (typified by contrasting forms of chopsticks and trees), repetition (as seen in the recurring plastic bottles in the bubble tea cup), and unity (evident in the orderly arrangement of batteries). Arrangements became more lively, utilizing diverse techniques and forms, ultimately increasing visual appeal. Textual descriptions in student conceptualizations revealed a notable improvement. Without the strategy, the students lacked professional terminology such as “very black color” and “do not destroy the earth.” The students demonstrated a more mature interpretation, using professional vocabulary to describe visual effects, such as “emphasizing the focal point with bright colors,” “adding a halo effect,” and “layering the composition.” This improvement in textual descriptions indicated a significantly enhanced ability to articulate the meaning of their designs with professional terminology.

Through the staged approach of narrative strategy teaching, the students exhibited enhanced performance in various aspects of poster design. The incorporation of diverse thinking methods led to creative presentations with changes in graphic applications contributing to the creation of spatial elements on a two-dimensional surface. The progress in students’ textual descriptions also indicated an unexpected positive outcome such as increased proficiency in expressing ideas through words. Table 4 illustrates the performance of poster designs before and after the implementation of narrative strategy teaching.

Table 4. Poster design performance before and after narrative strategy teaching.

Before Narrative Strategy Instruction Poster Design Performance				
Number	01-1	02-1	03-1	04-1
Concept	<ul style="list-style-type: none"> <li>The environment outside the seedlings is filled with garbage and some broken items.</li> <li>Many pieces of trash surround the seedlings.</li> <li>Hoping to plant more trees and reduce littering.</li> </ul>	<ul style="list-style-type: none"> <li>Despite the continuous promotion of environmental protection by humans, there has been little improvement, and the situation is continuously worsening.</li> <li>Personifying toxic smoke after combustion into ghosts to punish humanity.</li> </ul>	<ul style="list-style-type: none"> <li>The environmental pollution is severe, hence the dark color.</li> <li>Dirty gases emitted by factories pollute the air and harm the Earth.</li> <li>To protect the Earth, environmental protection should be prioritized.</li> </ul>	<ul style="list-style-type: none"> <li>Every day, we are wasting natural resources, essentially damaging the Earth.</li> <li>The Earth is likened to sheets of paper being torn off one by one.</li> <li>Reminding everyone not to harm the Earth and to engage in environmental protection.</li> </ul>
Image				
After Narrative Strategy Instruction Poster Design Performance				
Number	01-2	02-2	03-2	04-2
Concept	<ul style="list-style-type: none"> <li>How many trees were cut down by humans to produce these chopsticks?</li> <li>Before processing, it was a beautiful big tree; after processing, it turned into a pile of waste.</li> <li>Bright colors are used in the background to emphasize the key points, combining chopsticks and trees, making it economical and straightforward.</li> </ul>	<ul style="list-style-type: none"> <li>Black serves as the background to make the theme more prominent, with the addition of a halo effect to avoid a too harsh appearance.</li> <li>The plastic waste in the bubble tea cup is used to promote reducing plastic usage.</li> <li>The speed of plastic recycling cannot keep up with the rate of destruction. Let's reduce plastic together and protect the Earth.</li> </ul>	<ul style="list-style-type: none"> <li>The poster conveys that each person is like a battery; without power, there is no vitality. The ecological environment requires extensive greening.</li> <li>Using color differentiation, the more severe the destruction, the less power there is, and the darker the color, representing an imminent power outage, a world without brightness.</li> </ul>	<ul style="list-style-type: none"> <li>The poster aims to express that if we practice environmental protection, the world's waste will continue to increase.</li> <li>The poster objects are composed of solid color blocks, overlapped to create visual depth.</li> <li>When adding color, strive to maintain a soft color tone to emphasize harmony.</li> </ul>
Image				

### 3.3 Feedback on Strategy

Following the twelve-week implementation of narrative strategy teaching, we collected the students’ feedback coded as S1-S40. Content analysis was employed to parse the reflections and categorize them based on the semantic meaning, frequency, or occurrence of words used by the students. The results helped us understand students’ learning experiences and opinions, supplementing the research data for further analysis.

Students positively evaluated the narrative strategy in the course. Direct expressions of satisfaction with the course structure were noted. They enjoyed one-on-one discussions and mutually sharing inspirations with the professor and found teaching helpful. Text-related aspects were mentioned 11 times (e.g., font selection, font application); graphic aspects were mentioned 5 times (e.g., illustration drawing, graphics, images); color aspects were mentioned 14 times (e.g., color coordination, color combinations); and layout aspects were mentioned 16 times (e.g., layout, composition, image configuration). The narrative strategy in poster design teaching had a positive effect. Additionally, students thought that they improved their creativity and imagination. This indicated that the integration of narrative strategy enhanced students’ application of poster design elements and significantly stimulated creativity and imagination were mentioned 29 times. With the narrative strategy, students broadened their perspectives on design communication and aesthetics out of conventional creative thinking frameworks. Consequently, the narrative strategy assisted students in applying the elements of poster design and exploring inspirational directions with self-affirmation in their works. Several feedbacks are presented in Table 5.

**Table 5.** Excerpts from Student Post-Course Feedback

Student Code	Student Feedback
S1	<ul style="list-style-type: none"> <li>I enjoy one-on-one discussions with the professor. The professor guided me on how to choose colors for the color draft and which font matches the poster better. Through this process, I gain a clearer understanding of how to present my work more effectively.</li> </ul>
S3	<ul style="list-style-type: none"> <li>Discussing assignments with the professor allows me to identify my mistakes and make revisions. The staged discussions stimulate my imagination, providing more room for creativity and enhancing my layout skills, ultimately strengthening my execution of poster design.</li> </ul>
S6	<ul style="list-style-type: none"> <li>The teaching style of the professor alleviates the pressure I feel during the design process. Early identification and correction of issues, along with guidance on utilizing design elements for arrangement, contribute to increased creativity.</li> </ul>
S8	<ul style="list-style-type: none"> <li>Sketch discussions effectively spark imaginative creation and ensure alignment with the intended direction. Color draft discussions help identify areas that need improvement and enhance coloring abilities. Discussions during the refined draft phase fine-tune unnoticed details, strengthening the layout and refining the poster. I greatly appreciate this discussion process.</li> </ul>
S13	<ul style="list-style-type: none"> <li>Reviewing examples and brainstorming stimulate my imagination. Individual discussions with the professor allow me to address design issues promptly. Through discussions, I can explore more ideas to incorporate into my work. This teaching method is particularly helpful, and the posters I create leave me satisfied and fulfilled.</li> </ul>
S16	<ul style="list-style-type: none"> <li>Revisiting sketches and discussing them helps with font selection, layout, and arrangement. This process contributes to the refinement of my work, and the most significant benefit is the step-by-step guidance that enhances my execution.</li> </ul>
S17	<ul style="list-style-type: none"> <li>The brainstorming process is enjoyable. Identifying and correcting poster design issues early in the class, modifying layout elements, and reinforcing my weakest area—color coordination—are highlights of the course.</li> </ul>
S24	<ul style="list-style-type: none"> <li>This course feels more relaxed, with less pressure and anxiety. Ample time is provided to identify errors or areas for improvement in the poster. Given my weak points in layout and color, I genuinely appreciate the professor’s approach to guiding us through the poster-making process.</li> </ul>
S27	<ul style="list-style-type: none"> <li>The discussion process in the course teaches me how to add details to enrich the poster’s design and make it more visually appealing. It also guides me on choosing colors to make the theme more evident and how to use fonts and arrangement to avoid design mistakes.</li> </ul>
S37	<ul style="list-style-type: none"> <li>Having examples and engaging in brainstorming during the course stimulates my creativity and design inspiration. Discussions help correct errors and assist in understanding fundamental design concepts, as well as the application of elements, colors, and layout.</li> </ul>

## 4. Discussion

In recent years, Taiwan's higher education has actively pursued internationalization, coupled with the government's promotion of the New Southbound Policy. As a result, universities have expanded their enrollment outreach abroad. Factors motivating students to study abroad include the opportunity to explore different cultures, gain new perspectives on thinking and behavior, make new friends, and enhance their cross-cultural knowledge and skills (Andrade, 2006; McClure, 2007). While exposure to different cultural backgrounds enhances adaptability in various aspects of overseas studies for students (Krizmanić and Kolesarić, 1991), it also brings about challenges related to learning. Narratives, inherent in everyday life, are used to record events, create and transmit culture, and possess inspiring and educational qualities (Collins & Cooper, 1997). Through the implementation of the narrative strategy in poster design teaching, over 70% of students significantly improved their performances. Their proficiency in utilizing the four major elements of poster composition—text, image, color, and layout—became more apparent. This suggested a significant positive effect of narrative strategy on the poster design teaching effectiveness for Southeast Asian students. The proposed narrative strategy applied to poster design teaching enhanced the design capabilities of Southeast Asian students and developed their ability to independently complete design tasks. This aligned with the core philosophy and goals of the teaching approach. Through staged exploration, analysis, problem identification, and goal-setting, students, guided by their professor, creativity was enhanced in practical exercises and discussions. At each stage, continuous practice enabled students to grasp the key points of the design task, understand design aspects, transition from intuitive thinking to utilizing metaphorical techniques, and develop confidence in design. The positive results were confirmed by the expert assessment results on their works and comments. Such results validated the substantial benefits of the narrative strategy in poster design teaching for Southeast Asian students.

## 5. Conclusions

Studying abroad benefits students with lower socio-economic status, as their early backgrounds may not have provided opportunities to acquire skills or knowledge in traditional educational paths. Studying abroad also induces and develops an interest in professions (Schafer et al., 2013). As Netz (2021) stated, studying abroad represents a unique life journey for students, and the time spent studying abroad is crucial (Petzold, 2021; Van Mol et al., 2021). For students from diverse cultural backgrounds, it is necessary to adjust teaching materials and methods accordingly. We implemented the narrative strategy in a course targeting Southeast Asian students and evaluated its effectiveness with single-group pre-and post-tests. It is needed to include domestic students to understand the effectiveness more extensively. We focused on the application of the narrative strategy in poster design teaching. Therefore, it is recommended to explore its effectiveness in other design domains, such as product design, exhibition design, web multimedia, animation production, etc. The result helps to increase the number of international students in learning courses with narrative strategies and assists them in understanding course knowledge and obtaining learning outcomes. The results of this study serve as a reference and application in researching various teaching methods.

**Author Contributions:** Conceptualization, T.-C. Ma and C.-H. Lin; methodology, T.-C. Ma; software, S.-N. Hsu; validation, T.-C. Ma, C.-H. Lin and S.-N. Hsu; formal analysis, T.-C. Ma; investigation, T.-C. Ma; resources, T.-C. Ma; data curation, S.-N. Hsu; writing—original draft preparation, T.-C. Ma; writing—review and editing, S.-N. Hsu; visualization, T.-C. Ma; supervision, C.-H. Lin.

**Funding:** This research did not receive external funding.

**Data Availability Statement:** The data of this study are available from the corresponding author upon reasonable request.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Altbach, P. G., & Knight, J. (2007). The Internationalization of Higher Education: Motivation and Realities. *Journal of Studies in International Education*, 11, 290–305. <https://doi.org/10.1177/10283153070303542>
2. Andrade, M. S. (2006). International Students in English-Speaking Universities: Adjustment Factors. *Journal of Research in International Education*, 5(2), 131–154. <https://doi.org/10.1177/1475240906065589>
3. Bal, M. (2009). *Narratology: Introduction to the Theory of Narrative* (3rd Edition). Toronto, CA: University of Toronto Press
4. Cheng, H. J. (2001). *Creative Selections - Poster Design Section*. Taipei, Taiwan: Yi Fong Tang publisher. (in Chinese)
5. Collins, R., & Cooper, P. J., (1997). *The Power of Story: Teaching Through Storytelling*. Needham Heights, MA: Allyn & Bacon.
6. Executive Yuan (2016). *New southbound policy promotion plan*. (in Chinese). Available online: <https://www.ey.gov.tw/Page/9277F759E41CCD91/87570745-3460-441d-a6d5-486278efbfa1> (accessed on 7 April 2023)
7. Hung, N. T., & Chang, J. C. (2019). Preliminary Investigation of the Current Situation and Influencing Factors of International Students in Taiwan under the Background of New Southbound Policy. *Taiwan Educational Review Monthly*, 8(2), 154–175. (in Chinese)

8. Kerka, S. (1998). Volunteering and adult learning. *RIC Digest*, 202. (ERIC Document Reproduction Service No. ED423 428 ) <https://files.eric.ed.gov/fulltext/ED423428.pdf> (accessed on November 15, 2023)
9. Krizmanić, M., & Kolesarić, V. (1991). Cultural Determinants and Implied Values in International Education. *Higher Education Policy*, 4, 32–36. <https://doi.org/10.1057/hep.1991.8>
10. Lauritzen, C., & Jaeger, M. (1997). *Integrating learning through story: The narrative curriculum*. Albany, NY, USA: Delmar Publishers
11. Lin, P. C. (1986). *Commercial Design*. Taipei, Taiwan: Artist Magazine. (in Chinese)
12. Lo, H. C. (2021). Introducing Intergenerational Co-creation into Welfare Design Practice Course. *Journal of Design*, 26 (2), 91–108. (in Chinese)
13. McClure, J. W. (2007). International graduates’ cross-cultural adjustment: Experiences, coping strategies, and suggested programmatic responses. *Teaching in Higher Education*, 12(2), 199–217. <https://doi.org/10.1080/13562510701191976>
14. Ministry of Education Statistics (2023). *Analysis of Foreign Students from New Southbound Policy Countries in Taiwan*. <https://stats.moe.gov.tw/statedu/platform.aspx> (in Chinese) (accessed on December 15, 2023)
15. Netz, N. (2021). Who benefits most from studying abroad? A conceptual and empirical overview. *Higher Education*, 82, 1049–1069. <https://doi.org/10.1007/s10734-021-00760>
16. Polkinghorne, D. E. (1995). Narrative configuration in qualitative analysis. In J. A. Hatch & R. Wisniewski (Eds.), *Life history and narrative* (pp. 5–23). London, UK: Falmer
17. Petzold, K. (2021). Heterogeneous effects of graduates’ international mobility on employers’ hiring intentions—experimental evidence from Germany. *Higher Education*, 82, 1093–1118. <https://doi.org/10.1007/s10734-020-00524-3>
18. Schafer, M., Wilkinson, L., & Ferraro, K. (2013). Childhood (mis)fortune, educational attainment, and adult health: Contingent benefits of a college degree? *Social Forces*, 91(3), 1007–1034. <https://doi.org/10.1093/sf/sos192>
19. Su, T. H. (2003). *The Art and Functionality of Posters*. Taipei City, Taiwan: Hwa Kang Publishing Center. (in Chinese)
20. Van Mol, C., Caarls, K. & Souto-Otero, M. (2021). International student mobility and labour market outcomes: an investigation of the role of level of study, type of mobility, and international prestige hierarchies. *Higher Education*, 82, 1145–1171 <https://doi.org/10.1007/s10734-020-00532-3>
21. Yang, Y. F. (2009). *Narrative Design Aesthetics: Revival of the Four Great Civilizations*. Taipei City, Taiwan: Chuan Hwa. (in Chinese)

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