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Seeking an Alternative Approach for Preparing Studio Project Brief: A studio experimental exercise for a spatial design project

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Introduction

In the design studio environment, establishing a project brief is a key task for both teaching and learning. Due to the complicated nature of any possible project, the briefing stage requires a specific set of skills in order to identify the intended audience, clarify visions and objectives, and form criteria and principles for the project. Its process involves a series of activities, including researching and collecting information, defining relevant issues, evaluating and selecting appropriate solutions, and finally, implementing choices, etc. Hence, the creation of an appropriate project brief that can successfully capture all these details could be very complicated.

However, the briefing stage generates several challenges in the design studio environment. In particular, project briefs are often given in multifaceted text descriptions that are difficult to synthesize and convert into the dynamic features of the design process. This is compounded by students' lack of motivation to thoroughly analyze and understand the provided information, and students' potential become largely limited in the design studio environment. Hence, creating a brief that effectively captures and conveys the essences of a studio project has been a challenging task, and directly correlates with studio teaching and learning activities.

This paper presents a studio experimental exercise that seeks an alternative approach for preparing studio project briefs. In order to do so, a spatial design studio project was used for this experimental task. 20 second-year undergraduates voluntarily participated in the task. The principles of Instructional System Design (ISD) and Gagne's instructional theory related to the learning process were selected as guiding frameworks

to direct the exercise. During the 5-week program, students formed five independent teams and carried out a series of studio exercises for their team's selected building / place as a case study. The task firstly required each student to examine the tangible and intangible characters of the building/place through objective descriptions and subjective interpretations in 500 words. Following, the writing outcome was synthesized into three types of key words: nouns, verbs and adjectives. Each team member's set of words are combined with their team to form a set of new headings, and become a summation of the key features and characteristics of the team's selected building/place. Finally, the original intentions of the chosen design - the embedded values of the building/place - are expected to be revealed.

This backward induction offers an alternative approach for the process of preparing a studio project brief. Particularly, through visualizing and identifying the object's original intention through a combination of diagrams, images and concise notes etc., students can clearly pinpoint the project's objectives, criteria and expected outcome. This, in turn, forms the critical components of a project brief, and allows students to understand how it shapes their specific studio design tasks. Ultimately, the exercise helps develop students' ability to create a more pertinent project brief in the design studio environment.

Typical Problems in Dealing with Project Briefs
In the design studio environment, a project brief and its relevant issues are often predetermined, and its assessment criteria are also pre-framed. It leaves little room for a sense of ownership or involvement for students. Students often lack motivation to thoroughly analyze and understand the provided information. Due to not fully understanding the complicated nature of a project brief, students tend to focus on the tangible aspects of design and overlook the key intangible factors. Students experience difficulty transforming the objectives and criteria of a given brief into specific studio design tasks due to minimal experience in writing a project brief.

The Essence of Instructional System Design
The principles of Instructional System Design (ISD) provide a theoretical base for this exercise. According to ISD, instructional design creates a process that renders the 'acquisition of knowledge and skill more efficient, effective, and appealing' (Merrill, Drake, Lacy & Pratt 1996), and the outcome of the process largely depends on whether

the instruction is properly designed. Dick, Carey L and Carey J (2011) proposed a similar idea, highlighting that key components involved in instructional design 'such as the instructor, learners, materials, instructional activities, delivery system, and learning and performance environments' should be encouraged to 'interact with each other and work together to bring about the desired student learning outcomes'. Evidently, the ISD approach places particular emphasis on the needs of the learner, supported by the role of the delivery system and instructional materials.

Another key instructional theory developed by Robert Gagne synthesizes ideas from behaviorism and cognitivism. Through seeking taxonomy of learning outcomes, particularly in the cognitive domain, Gagne (1985) proposed a unique approach to how learning might be demonstrated. Further studies by Gagne and Driscoll (1988) distinguished between the different types of learning outcomes and identified a corresponding standard set of verbs (see Figure 1). They proposed that key learning outcomes could be identified and measured by assessing the properties of specific verbs used to describe it.

TYPES OF LEARNING OUTCOMES		STANDARD VERB
Verbal Information		state, recite, tell, declare
Intellectual Skills		discriminate, distinguish, differentiate
1. Discrimination		identify, name, specify, label
2. Concrete Concept	CORRESPONDING	classify, categorize, type, sort (by definition)
3. Defined Concept		demonstrate, show, solve (using one rule)
4. Rule		generate, develop, solve (using two or more rules)
5. Higher Order Rule		adopt, create, originate
Attitude		choose, prefer, elect, favour
Motor Skill		execute, perform, carry out

Figure 1: Adapted from *Essentials of Learning for Instruction* by R.M. Gagne and M.P. Driscoll, 1988

It is essential that project objectives, expectations and deliverables be clearly outlined in the briefing stage prior to the execution of any creative design process. The preparation

of such a detailed project brief in the design studio must first seek what key learning outcomes might be demonstrated. Following, a project brief can adapt the core propositions of Gagne and Driscoll's (1988) instructional theory to help specify the required outcome. Specifically, by identifying and incorporating relevant words corresponding to the desired learning outcomes, students are able to absorb the project brief's information in a 'more efficient, effective, and appealing' (Merrill, Drake, Lacy & Pratt 1996) manner.

It is important to note that this experiential task and its goals challenges the conventional preparation of a project brief and highlights a few key propositions.

1. The preparation of a project brief itself should be treated as a piece of artwork. It should experience the process of being designed, modified, or even completely replaced in order to realign with the design objectives and criteria of the project.
2. Student participation is considered an integral component during the generation of a project brief. Their active engagement directly affects the process and outcome of the project brief, fostering a positive attitude towards the exercise.
3. The most important outcome from this exercise is to understand the transition phase between pure text descriptions and more dynamic visual expression. This method provides students with a new angle each time a project brief is developed.

Experimental Exercise to Prepare Project Brief
This exercise was designed for students to explore a different method of preparing studio project briefs. Instead of being provided with a pre-framed project brief, the task requires students to explore the formulation of a project brief through examining the original intentions of the existing design. Students were given an opportunity to freely explore all possible outcomes, and were asked to develop a self-reflective interpretation. Through articulating research processes and outcomes, both tangible and intangible characters of their selected buildings/places were formulized. Their research was further synthesized through the adaptation of ISD, and developed into critical components of a project brief.

Step one: Objective description and subjective interpretation

The cohort formed into five groups of 4 and selected a prominent building/place as the focus of their team. Teams visited their selected project on site, and each student engaged in independent site research, investigating the key properties and characteristics of the target object. Following, two writing exercises were required. The first was to provide an objective description of the building/place, whilst the second was to offer a more subjective perspective about its features and intentions. Step one helps students develop a basic understanding of the target before conducting deeper analysis in subsequent steps.

Step two: Identify key words by classifying their characteristics
Each student thoroughly analyzed his/her own writing exercises and identified key words related to names, actions, or states. This essentially required identifying nouns, verbs and adjectives that students believed were most illustrative of the building/place. Key words were compiled into a team list and ranked based on frequency of use. It was also encouraged that teams discuss the suitability of words selected and change them where necessary. This step is particularly beneficial to students working in a team studio environment as it shares diverse perspectives in the form of similarities and differences in the words chosen, and promotes a broader understanding of the project at hand (see Figure 2).
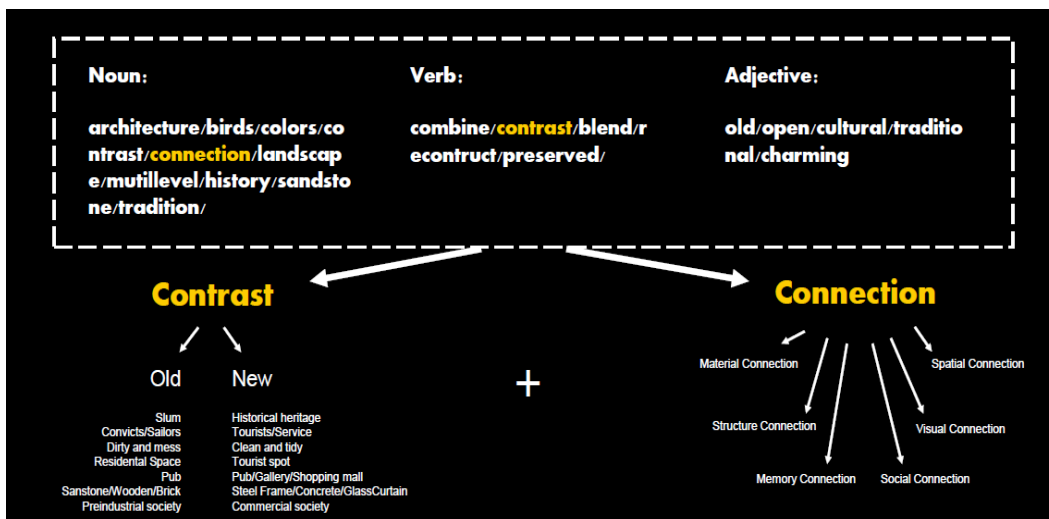

Figure 2: Keywords were compiled into a team list and ranked based on frequency of use.

Step Three: Transforming key words into measurable design issues and criteria

Once the lists of words were refined, they were categorized into headings related to tangible or intangible aspects of the selected project. Such a categorization helped to infer the quantitative and qualitative aspects of the building/place, which could be transformed into measurable design issues and criteria. Furthermore, categorization by tangible and intangible aspects addressed not only the physical appearance of the object, but also highlighted the inherent attributes embedded within the object. Therefore, a new set of key words could be established. Being able to relate descriptive words to measurable design intentions is a crucial skill that this step aims to emphasize (see Figure 3 & 4).
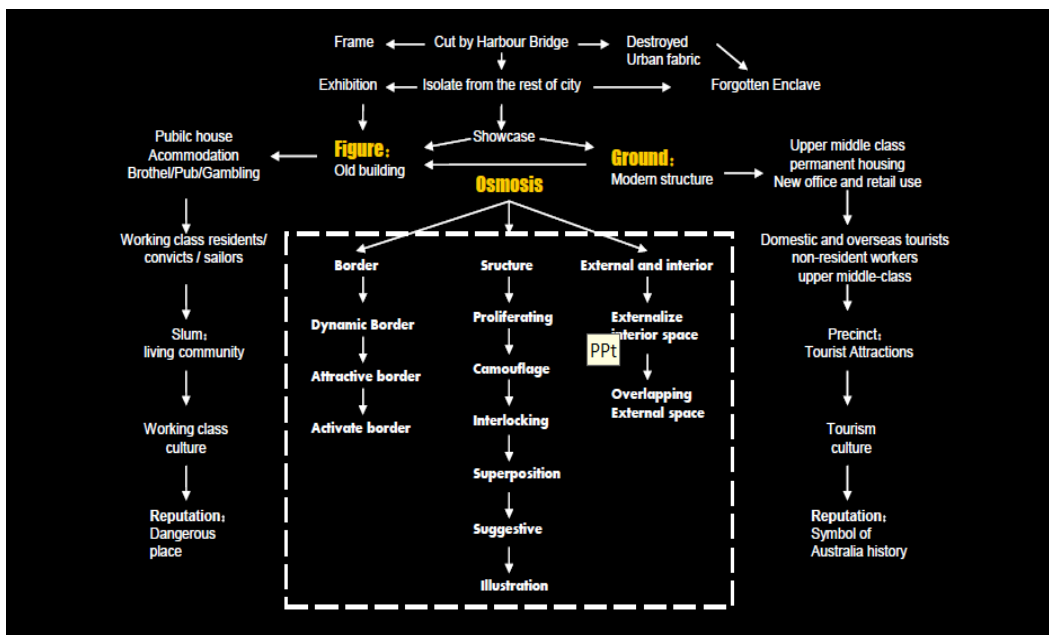

Figure 3: Lists of words were refined & categorized into headings related to tangible or intangible aspects of the selected project
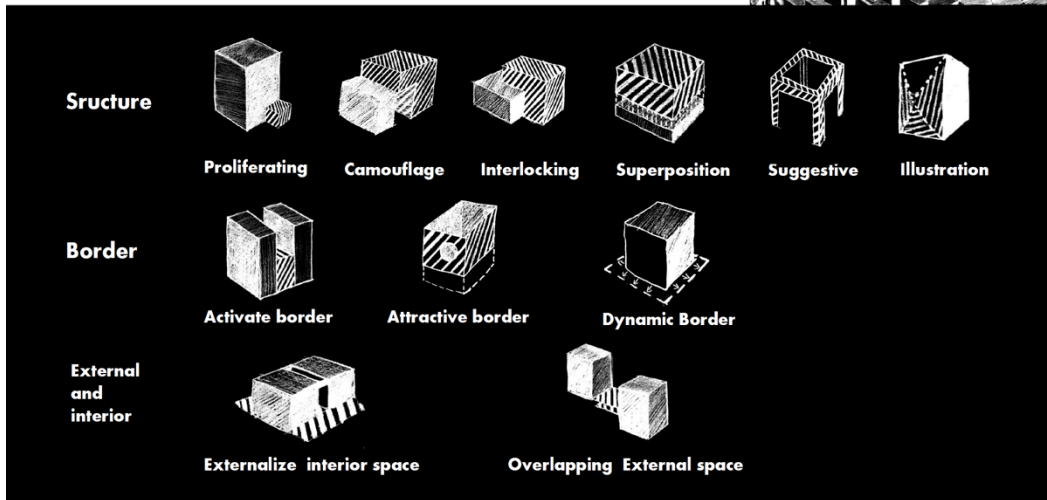
Figure 4. Categorization helped to infer the quantitative and qualitative aspects of the building/place

Step Four: Visualize interpretation of design issues and criteria

The process of relating purely descriptive words to significant design issues is achieved through a wide variety of studio design techniques. Specifically, a special exercise called visualized interpretation was introduced, which involved photographic surveys, diagrams and sketches. Students presented series of visual interpretations to support corresponding key words chosen, and used their visual communication skills to reflect the different dimensions of design issues (see Figure 5 & 6).

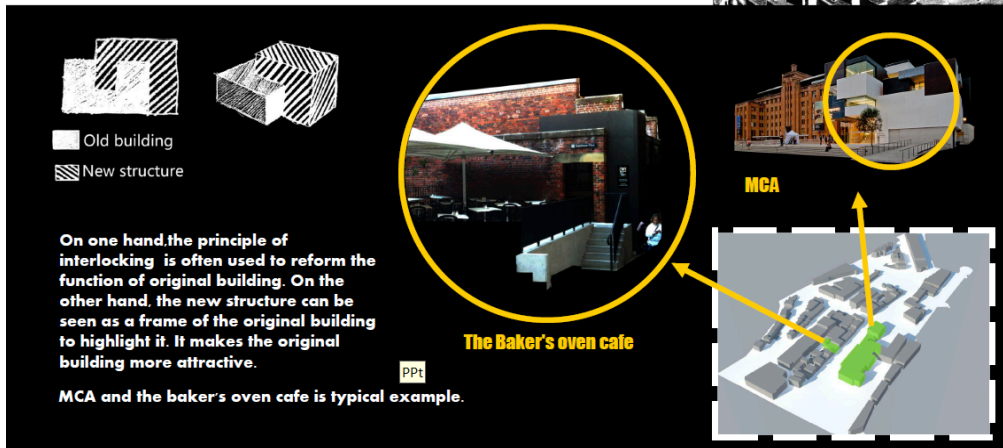Figure 5: Visualized interpretation involved photographic surveys, diagrams and sketches
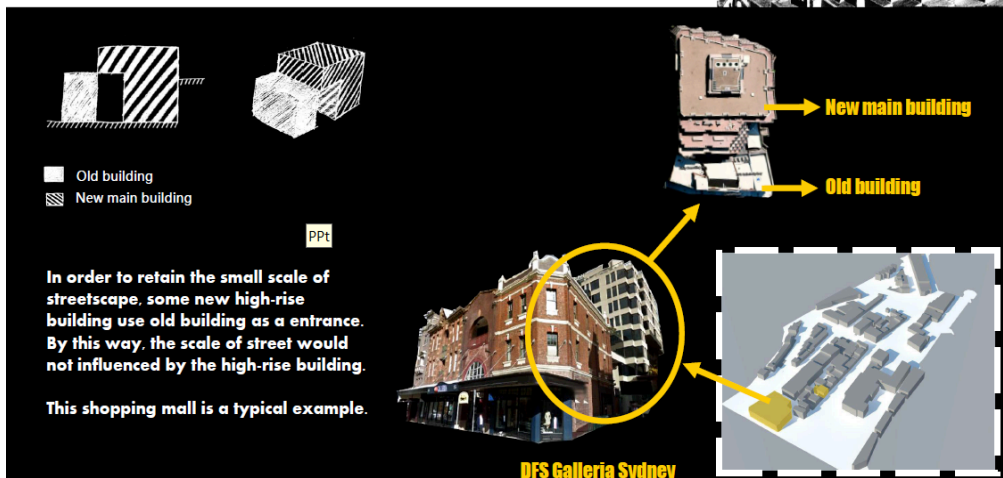

Figure 6: Visual communication reflected the different dimensions of design issues

This backward induction offers an alternative approach for preparing a studio project brief. The process upon which the concise notes, photos, diagrams and sketches were brought together provided an effective way of dissecting the original intentions of buildings and places. Moreover, it construes the object's hidden dimensions into a "visible" set of criteria that make the design task much more approachable.

Rethinking the Process from the New Approach

1. By asking students themselves to investigate and complete a project brief, this experimental exercise challenged the typical studio design learning experience by placing students in a more self-governing position. This open-ended approach offered students a flexible atmosphere to express themselves, and promoted students' constructive attitude towards the studio project.

2. Studio projects often overlook written expressions. Starting the exercise with an unconventional text analysis encouraged students to become more conscious of what words they have chosen in order to convey a particular personal opinion about the design project. In particular, the adaptation of Gagne's instructional theory inspired the organization and prioritization of nouns, verbs and adjectives. This not only allowed students to witness how certain words convey certain meanings, but also how words interact together to create synergies that depict a deeper meaning about their target project.

3. Students were challenged to transform key headings into measurable design issues and criteria, and this was achieved through visual reinterpretation. Photographic surveys, diagrams, and sketches were employed to help break down the complicated layers of design issues into tangible and intangible factors. In combination with instructional theory, both visuals and narratives can be used as a scaffold for students to more effectively explore the mysteries of the design learning process.

4. This method provides an alternative approach that treats the project brief not as a given itself, but a backward induction process that clarifies the original project objectives and criteria. Therefore, a thorough understanding of the original object is required before its characteristics can be synthesized into specific criteria and measurements on a project brief. Hence, this complete exercise presents a simple yet thorough approach, which not only achieves learning goals but also broadens students' studio design skills.

Conclusion

This experimental task provided a special learning experience for each student involved. Beginning with on-site visits and ending with re-constructing project briefs for selected buildings/places, students gradually learnt of the multifaceted meanings and values that

have been built into the appearance of a building. More importantly, they realized the crucial role a project brief plays. Given their much deeper insight into the complex nature of a design project, students are now more willing to investigate and challenge predetermined issues/briefs. Furthermore, they developed a set of core skills to transform pure text into applicable design issues and criteria. Ultimately, this exercise laid a sound condition for students to prepare their own studio project brief in the future, which will significantly improve the quality of their studio learning experience and outcome.

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