

Rationalizing Design Sensitivity



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Abstract

The advent of digital technology has created a radical shift in execution tools within the realm of graphic design. This has turned out to be a blessing and a problem in relation to the context and the user. Working with traditional tools, like the brush, ink, paper or pencil, which were simple to use, fortunately allowed errors while executing a task and indirectly promoted learning and sensitivity. More was understood by doing, sharing and observing each other, in comparison to computers, which nowadays, only permit individual participation from the user. Today's new tools and software offer error-free execution, making a task easier for an individual to create a layout, use a typeface, choose a color or an image with 'utmost insensitivity,' particularly among novice learners of the discipline. Apparently, it leads them to demand more rational approaches to understanding graphic design sensitivity.

Considering the above issue as an impediment to explorations in foundation design courses, this paper focuses on enhancing dual processing modes, i.e., vertical and lateral, in the context of contemporary design education, with the introduction of a tailored course for teaching visual order in two-dimensional graphic design. The reference is to issues in graphic design (typography) dealing with sensitivity; which at times seem difficult to rationalize. The method the experiment adopts is to create a problem for students based on certain predefined criteria, which needs to be fulfilled, plus ensuring them the freedom to generate solutions laterally. Once students transform the given problems into solutions, the instructor unveils the underlying principles of graphic design with simple analogies, finding parallels with elements and principles of design. Instead of adopting a conclusive approach of being right or wrong, that hinders exploration, students engage with the contextual nature of graphic design. The method also uses collaborative learning as a remedy to address the contemporary issue of individual submission to the dominance of the new media, in which beginners in the discipline struggle most of the time with the tool, rather than the task.



Introduction

Design assignments in foundation courses usually have a more artistic bent and at times completely lack a methodological and scientific approach. For this they are criticized. Debatable among different school of thoughts, this leads to dominance of one kind of thinking over another. Most of the time, this discourse is more vocal about which approach is more effective for modern graphic design education, rather than suggest empirical methods to create new paradigms for design education. To balance rational and lateral thinking modes, this paper proposes a method for criteria based design education (making it more comfortable for rational minds) as well as at the same time extending the range for exploration, that in turn encourages lateral thinking.

Before we begin, lets get a brief background of the audience for whom this assignment was created; in this case, first semester communication design students of the Department of Design at the Indian Institute of Technology Guwahati, Assam, India. IIT's are India's technical universities known for their engineering and computer science programs. There are two design courses running at two of the IIT's in the country. One of them is the Industrial Design Centre at IIT Bombay, a two-year post graduate program (M.Des) offering two streams, product design and visual communication, with multidisciplinary entrants, such as commercial artists, engineers and architects. While the other one is the Department of Design at IIT Guwahati, one of the newest design institutions, started in 1994. It is actually the only university level undergraduate design program in the country, again offering the same two streams. ~~This one recruits students who expect to become computer scientists and engineers~~ (Scotford, 2004). Therefore, teaching such rational minds at IIT Guwahati poses an unique challenge; students at IIT Guwahati find it difficult to express ideas without a rational basis. This is especially true of expressive and sensitive issues related to typography, in comparison with their counterparts in other art and design schools in India (Scotford, M. 2003). A clear need for a specially 'tailored' course, especially for students of

design at IIT Guwahati exists in order to enhance their dual processing modes (Kumar, 2000). This paper shares a new framework towards teaching courses in graphic design, one that provides an opportunity to exercise both thinking modes, analytical as well as syncretical, in the context of tradition and modernity.

For this assignment, we start by choosing a few students whom we shoot with predefined objectives (i.e., define a numerical order to the students), to take still pictures and later identify and discuss the relation of the analogy (of the presented solution) to elements of two-dimensional graphic design. The first part of the assignment works with a single student, to understand the principle of emphasis and its relation to surrounding white space. Further, the assignment deals with increasing the number of students to shoot still frames (pictures) as solutions to the posed problems in order to understand visual hierarchies. The whole class participates in the act, but only three subjects (students) are required in the rudimentary levels of the assignment. The rest of the class participates in the thinking process and sharing their thoughts to execute the solution. Casting the three subjects is very critical for the assignment, because that is what makes it challenging for the students as well as easy for the instructor, at a later stage, to relate it analogically to two-dimensional graphic design.

Experiment: (assignment)

For this assignment we need three subjects, it is necessary that the subjects have an incremental difference in relation to their physical features; additionally, they should form an obvious (ascending or descending) visual hierarchy, when they stand, together, as shown in figure 1. Rahul seems to be the most dominant, due to his physique (first in the hierarchy), Kshitij (middle in the hierarchy) and then Navendu (last in the hierarchy), as our third subject.

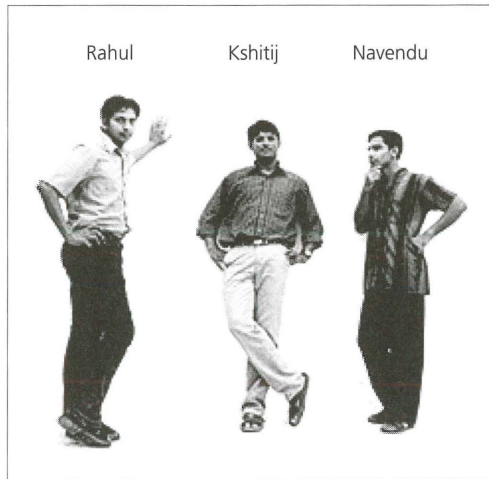


Figure 1. Participating students. From left, Rahul, Kshitij and Navendu

Task 01: One subject, create emphasis.

In task 01, students are given one subject to shoot in a pre-defined frame. Figure 2 was the outcome for their first frame. Here the subject 'Rahul' settles himself in front of the camera with a very casual gesture. The gesture was not considered important to the conclusion; it is neither right nor wrong in relation to the task. If the students are satisfied with the gesture, as the solution to the problem as posed, then they move on to the next task, which is not known to them.



Figure 2. Task 01

Results: When cross-checked with users (students), they naturally tend to look at the subject because nothing else is found in the space beside the subject. When a figure floats isolated in a sea of empty space, its presence is emphasized. Hence, in comparison to two-dimensional graphic design, layouts with a single element easily create emphasis. It automatically augments the presence of the subject, since it is the only element in that space. Quite simple! Students were told to compare the situation to a word, or a text written in a given format on paper. As the subject has a style, a character and meaning of its own (identity of the person), a font also behaves in the same manner with a style, character and meaning of the written word itself.

Task 02: One subject, create more emphasis in comparison to task 01.

In task 02, students shoot the same subject and are expected to create more interest (emphasis) in the frame compared to their prior task. Figure 3 was the outcome for their second frame. Here the subject 'Rahul' communicates a gesture, which depicts the act of listening, a more active and dynamic composition than the task performed earlier. All the students participate in rendering the gesture for the solution, i.e., students behind the camera and the students acting as subjects. The solution is an outcome of discussion and debate amongst themselves.

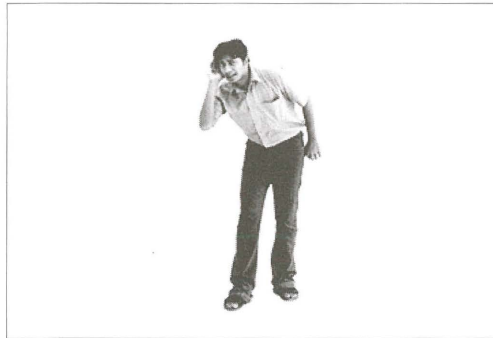


Figure 3. Task 02

Results: In this sequel, the solution is obviously more emphasized than the earlier one. The gesture, including body movements, makes it more dynamic; the subject appears to move in a certain direction. When both frames were compared by a user, task 02 naturally gained over task 01, supporting the assignment objective. Students were told to compare this to the task of modifying the written text, i.e., maybe changing it to italics or altering the orientation of the written word itself to make it more dynamic. The student's efforts were examined before they proceeded to the next task.

Task 03: One Subject, create more emphasis in comparison to task 02.

There is no major difference if task 02 and task 03 are compared. The scale of emphasis is comparatively less when both tasks are compared (see figure 4).

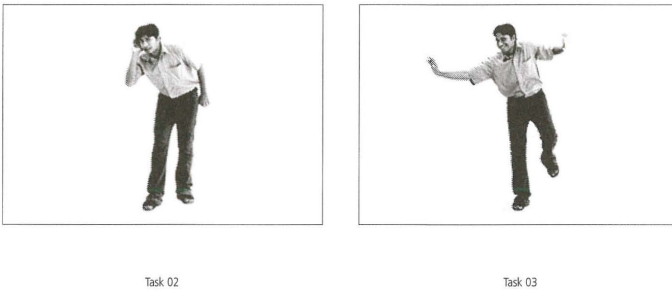


Figure 4. Task 02 and Task 03

Results: In task 03, students were unable to achieve any desired results for the objective of the given task. This means that when a user compared task 02 and task 03 (figure 4) neither frame took prominence over the other. Results varied. Students were not sure whether task 03 would attract all the attention. The situation was ambiguous, it did not fulfill the objective of increasing emphasis (interest levels) throughout the sequence.

Task 04: One Subject, create more emphasis in comparison to task 03.

In task 04 (figure 5), students were told to address the situation by increasing font size, covering the whole format and trying to get more attention with a single element. In an earlier case, we defined it as single font, maybe Italics, or bold, here it serves as an analogy to represent an expressive font, i.e., an expressive gesture.



Figure 5. Task 04

A comparative study of all tasks (01-04) at one time, delivers a look through the whole aim of the exercise. In each of the frames in figure 6, the subject is compared to a written word. It tries to depict the relation among incremental gestures that have simultaneously affected the written word. The subject with its character, style and dynamism, symbolizes expression and emotion in a written word. This is easy to relate visually for a rational mind. Students themselves realized the essence of adding life (which is usually a sensitive term) through a font to the communicated message. The student begins to appreciate enhancement of the desired message with typography in the context of a single element; he comprehends the relation and importance of the white space and its discussion with the written text. It justifies for the student, typing a word on a software canvas as a meaningful act, and the need to be conscious while choosing a font. As an instructor, one can now easily comprehend why students were purposefully given a single subject in the preliminary levels of the exercise and the reason to restrict the exercise to black and white, instead of confusing them with a color variable, that could be dominant in catching attention.



Figure 6.

Task 05: Two subjects, create equal emphasis for both or make both of them equally unimportant, in other words create a cohesive whole.

Task 05 introduced an additional subject. Among the three subjects mentioned earlier, the last subject in the hierarchy was chosen for this task. Now students had to deal with two elements in the given space. In task 05 students were required to create equal importance for both subjects, in other words, neither of the two should be prominent. Students were expected to come up with a solution, which distributes almost equal attention to both the subjects, when perceived by the user.

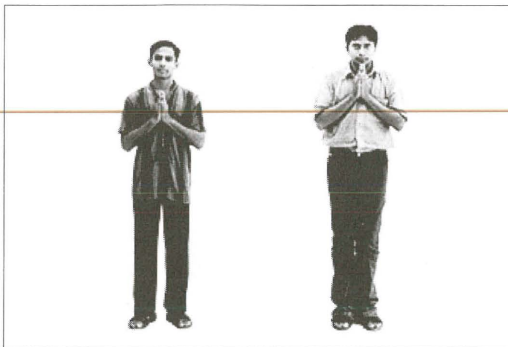


Figure 7. Task 05

Results: In the solution presented (figure 7), students tried to achieve uniformity in the gestures, so that, they could achieve equal importance to satisfy the pre-defined objective. Unfortunately, the task failed when tested with users; the right subject had more prominence over the left, with few exceptions. To discuss the analogy with graphic design, the result of one's communication cannot be ambiguous with reference to the defined objective. When one designs there is always a purpose to be achieved. If results happen to vary with users, then one needs to redesign to get closer to the defined objective, not with the sole aim to find the right answer, (vertical thinking), but to find more alternative solutions (lateral thinking) to get closer to the defined objective.

The solution was analyzed further for students. After the task, students were told if they had brought the subjects closer to each other, their individual identities would dissolve. Two subjects standing apart from each other, created distinct spatial differences and focused attention on their most prominent feature, difference in height, students were told to compare the situation with two words written on a white canvas and if the point size of one word had been larger, how could they achieve equal importance? Would spatial distances have mattered (for the two words to lose their identities and form a group as a whole), if the given task is creation of equal or unequal importance for both words? How are they to form a group of two elements as one, when both entities are distinctly different. Analogy applies to graphic design as well, where size, color, orientation, content and other related variables play an important role in creation of visual balance (symmetrical or asymmetrical) between elements. Students thought the use of similar gestures would fulfill the purpose.

(The reason for the choice of the first and the last subject amongst the order of three, was primarily to maintain the necessary challenge required for the given task.)

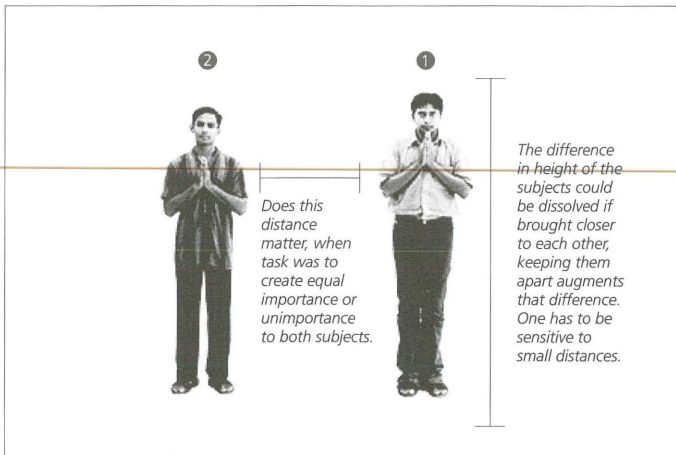


Figure 8. Task 05 (Analysis)

Compare the words in figure 9 with the subjects. Do the fonts resemble the properties of the subject, of it being condensed, tall and having an identity of the font face itself (in this case Zurich condensed bold) similar to the visual identities of those individual subjects? Another important point is the meaning of the written word, i.e., the content (in the context of the subject being a particular person and the written word "Rahul" transferring some information to the reader), if the reader personally knows the subject. The pragmatic expression of the task can be seen in figure 9 where the written words resemble the qualities of our subjects.

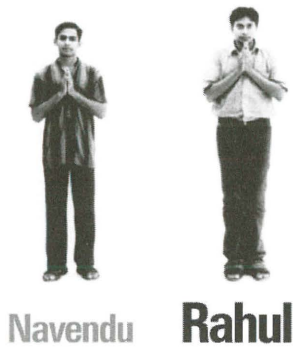


Figure 9. Task 05 Pragmatic Analysis

Task 06: Two subjects, follow the pre-defined order.

Task 06 begins with the concept of visual order. Here students are given a pre-defined visual order; now, in their solutions, adhering to the criteria, Rahul was to be perceived as No.1 and Navendu as No.2.

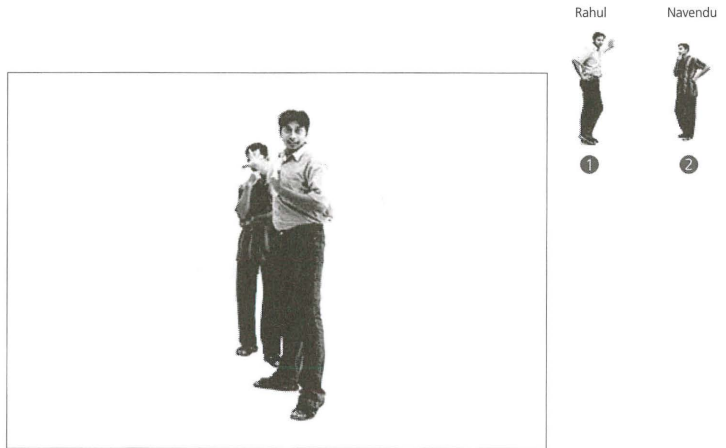


Figure 10. Task 06

Results: Yes, this time students got it right. When the picture was shown to users, Rahul was perceived as No. 1 and Navendu was No. 2. Purpose achieved. Quite an obvious solution, because Rahul is stronger than Navendu and moreover, subject No. 1 overpowers subject No. 2 by covering his face. Students were told, if more options were explored, without hiding the comparatively weaker subject's face, then it would have been considered a creative solution. Students were told to compare the situation with a layout where one word is written in red and the other in gray. Naturally the user would look at the red word first and the grey later (excluding the meaning of the word). Students were introduced here to the concept of doing the 'obvious,' as in, everyone's first solution to a given problem. Thus the instructor can rationalize the term 'obvious' and then refer it to novices, when they execute actual design solutions.

Task 07: Two subjects, order of perception for the solution was reversed in comparison to the previous.

This task was really tough; now students had to reverse the order and make the stronger subject (Rahul) No. 2 in the order of perception. In other words, students had to attract the user's attention towards Navendu, the weaker subject first and then towards Rahul.

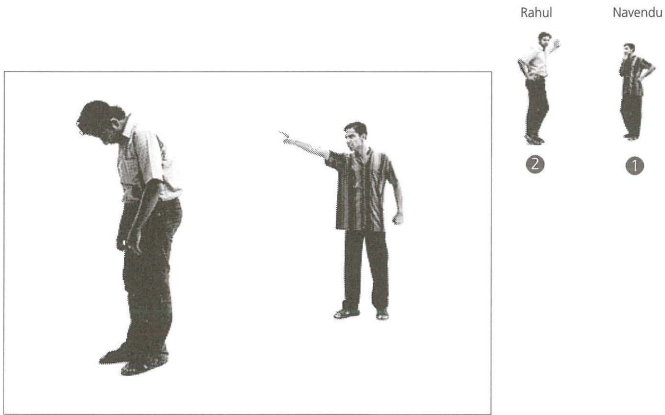


Figure 11. Task 07

Results: Excellent solution. When presented to the user, Navendu was perceived as No. 1 and Rahul as No. 2. Purpose achieved. However, there was an exception to the statement, one of the users perceived the order, exactly in reverse. The results varied with different users. Students were questioned — was it due to the emotional personality of the user, or was the reversed order of perception in opposition to the pre-defined objective? All users needed to perceive the information in the same order — this was not a coincidence. Students were expected to design information, to perform a well planned act. Now the communication was ambiguous.

Task 07: (Repeat) Reducing ambiguity with the help of elements of design.

The solution criterion is restructured with help from design elements. Radiating lines emerge from Navendu; this helps him dominate Rahul, creating a visual preference for him. We are trying to demonstrate the analogy that can be applied to graphic design problems, especially with consideration for rational minds.

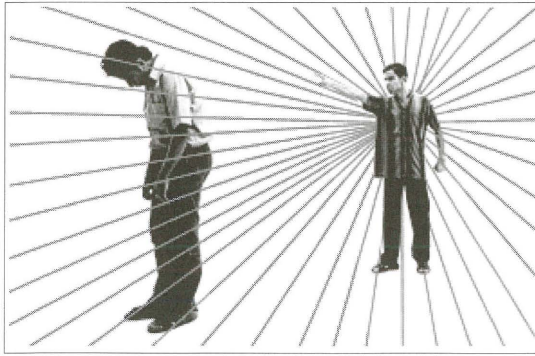


Figure 12. Task 07 (Analysis)

Figure 12 reduces the ambiguity of the desired order or reduces confusion along linguistic boundaries, where words like “maybe” or “unsure” overrule the defined objective. We are now quite definite about Navendu as No. 1 and Rahul as No. 2 in the order of perception. Students were exposed to the pragmatic aspects of design elements to enhance messages in graphic design. Thus the instructor explains how, with the help of line, color, size, shape, etc. (elements of design), one is able to create a structure or order for the visual message in graphic design, making it convenient for the reader to decode information in the order we want the message to be received.

Task 08: Three subjects, create solution to perceive the pre-defined order.

New subject (Kshitij) was introduced and now the task demanded creation of visual order among three subjects to match the visual order as defined to the right of the picture (see figure 13).

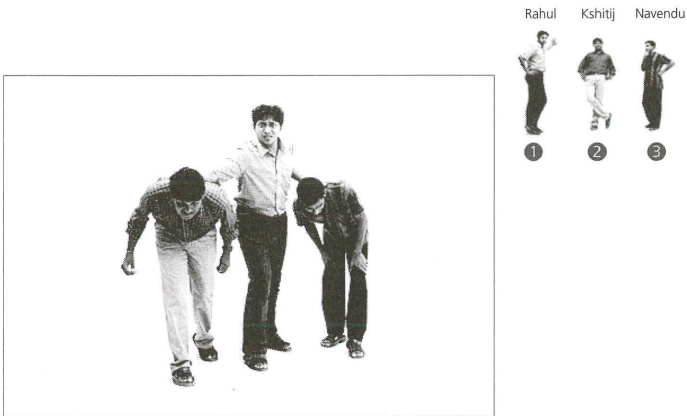


Figure13. Task 08

Results: This is a commendable effort from the students. The solution for task 08 has no uncertainty in perception for the pre-defined visual order. Rahul acts in control of the other two subjects, is perceived as No. 1, and Kshitij, who is physically pushed forward, is perceived as No. 2, whereas Navendu hides his face to step-down to No. 3 in the visual order. The subject in the center actually directs the order of visual perception and guides us to follow the rest. Students were told to build their solutions on the basis of visual flow, which can lead the user through a designed order (in this case, through gestures). The instructor explains the task, showing an analogy of flow in graphic design. He supplements his statements to find similarity with examples of reading direction in graphic design.

Task 08: (Analysis)

Substitution of the subjects with written text in order to rationalize the analogy depicting direction of reading. Chunks of texts are substituted for each subject.



Figure 14. Task 08 (Analysis)

According to the visual hierarchy perceived, the identity of the person acts as a heading of the text. Students were told while designing a layout, brochure or a pamphlet, font size and orientation of the elements, leads a user through a preferred visual order (devoid of the content). If the same 'context' was treated with content of the written words (i.e., the meaning of the written text, itself acting as an ingredient to lead towards a visual order) e.g., a very catchy headline, plus, with other decisive elements, such as a strong color, the hierarchies would have been different, compared to as they are presently perceived. Understanding the subjective nature of the discipline, students internalize the subjectivity of design solutions offered by different contexts and their appropriate solution, rather than consider it an irrational activity. Rational minds always search for absolute values.

Task 09: Three subjects, create solution to perceive a reversed order in comparison to task 08.

This task was more challenging. The pre-defined visual order in task 08 is now exactly reversed. It was interesting to make the weaker subject as No.1 in the order of visual preference.

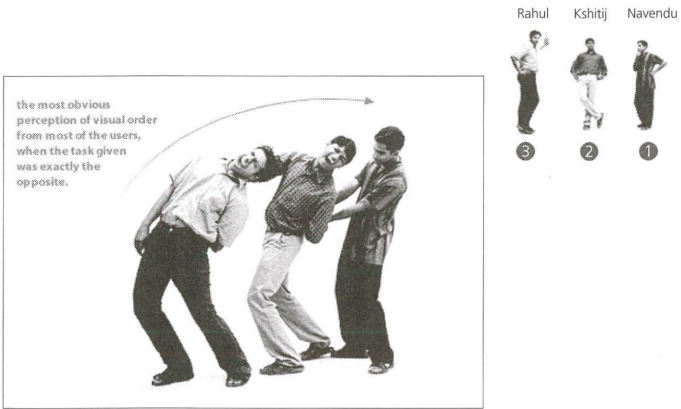


Figure 15. Task 09

Results: The idea was unique and expressive too, but could not meet the requirements of the posed problem. Unfortunately for the students, the exact reverse order was perceived by most of the users. Task 08 left an impression on their rational minds, regarding who is in control. Rahul, who was supposed to be perceived as No. 3, was perceived as No. 1 in the visual order. His expression and posture facilitated his dominance in the visual order, against the rest. Students were told, that if Rahul had taken Navendu's place (the subject who was supposed to be perceived as no. 1) this could have met the demands of the objective they were seeking. Lets understand this with an example.

The example shown in figure 16 relates to the fact, that a more attractive subject's gesture (in this case, Rahul), orientation or posture can be compared to an unusual or dominant element in a typographic layout, such as text written diagonally in the adjacent typographic layout. A bold font face and increase in font size attracts and captures more attention in comparison to the remaining elements. Students understood such miscellaneous factors (in pictures, gestures, layout, font face, size and value) act together towards the desired solution, and how it is necessary for a student to become sensitive to

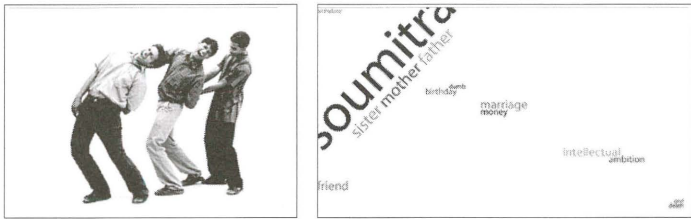


Figure 16. Task 09 Comparative analysis of task 09 with a typographic layout to find parallels, in order to strengthen the analogy

these aspects. The significance of this task can be understood as; Principles — contrast, emphasis, balance, movement, rhythm, etc. and elements of design — color, value, texture, shape, form, etc. act in a similar fashion, as variables to be balanced in different contexts for each graphic design problem. Visual order therefore can be considered as a rational criteria to confirm your design solution, based on the objective of the communication, but may not function as a formula or method. Creation of interest or persuasion in varied contexts encountered while designing requires both vertical and lateral thinking. So, graphic design involves both logic as well as sensitivity, as two sides of a single coin.

Task 10: 10 Subjects. Follow the predefined order and execute the solution.

Quite a difficult problem was posed for the students; the format or the space was the same, but the number of subjects was increased to ten. A new addition to the subjects was a female. Students were given the choice to pre-decide their own visual order for the ten subjects and then execute the solution to achieve that goal. The aim of this task was to challenge students with complex problems and help them internalize order and chaos in graphic design.

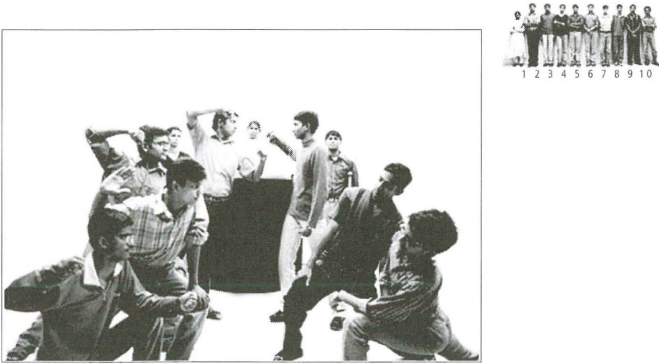


Figure 17. Task10

Results: This time students did not succeed in their task. They experienced the difficulty of handling too many subjects in a given space. They were told to relate to the situation by thinking of subjects as amount of information. To crunch a lot of information into a given space, and still make it comfortable for the user to extract information, was well understood by the students. Simultaneously, the act of designing information was described as a planned activity rather than random.

Task 10: Analysis

“Alcheringa” is the cultural festival of IIT Guwahati held every year, with many events and sponsorships. A billboard announcing the event tries to find its analogy with ten subjects and their visual order.



Figure 18. Hoarding displaying Annual college festival, Alcheringa 2003 in Guwahati city, Assam, India

The exercise served its purpose to explain the syntactics of design elements affecting the resulting solution. The example in figure 18 explains the lack of order, too many elements results in chaos, make it difficult for the user to perceive the message. The whole exercise confronts us with the question of whether communication of information can afford to be ambiguous in nature, when designing billboards, brochures, pamphlets or even websites. Do the subjects in the tasks resemble the elements present on the billboard? The instructor encourages contemplation of this to make them sensitive and conscious while viewing other visual communications they might encounter in the future.

Conclusion

Its all information and hierarchies of information we arrange around us. As designers, our sole aim is to facilitate ease in communication for the user. Creating interesting visual order to persuade the user to comprehend sometimes hidden visual order or at times to guide him through a well-defined visual order. In the tasks executed by the students, subject No. 10 can be considered as the base line for some information, subject No. 2 can be considered as a headline. If considered in a layout, subject No. 1 can be substituted as a visual element for a poster. If this information was in an interactive mode, one could imagine these subjects as clicks or hyperlinks of a website. When you click over a subject, the subject talks back to you or performs a gesture, which could resemble a mouse-over in a website. In this case the visual order of preference could be considered dynamic rather than static. Depending on the choice of the user, visual order could be shuffled to animate itself to the preference of the user, imitating interactive menus. For example, if we had to shoot a video with the subjects used in the tasks, and if we click over any subject, others can automatically rearrange themselves by physically moving into places to represent the descending order. This could lead to new paradigms to understand visual order with dynamic data through collaborative learning, like a theatrical performance.

Reason seems to be a prime concern of today's modern world. The link from theory to practical application is difficult for students to grasp, because the nature of the design discipline itself is very subjective and contextual in its solutions, which sometimes demand more lateral thinking when juxtaposed against vertical. This link becomes difficult as the student tries to seek rules (formulas) that can be applied to the problem solving activity, trapping him- or her-self in the dilemma of right and wrong in design. Quantitative results seem more pleasing in such cases compared to qualitative, since they are easily articulated by a rational mind. In this course, instructors face arguments regarding the precision of the analogies, for the reason that most of these tasks are analogous; i.e., understood by doing, seeing and comparing and not based on results, translated numerically. Comparison provides insights, not results, as they are based on learning through perception. Design assignments today, are currently under pressure to rationalize and at times, reason out acts as an incentive to make someone work towards a goal. Exploration finds it difficult to flourish within such environments, as they are based on a foundation of interests, rather than reasons. Therefore new assignments balancing both modes of thinking need to be designed. The assignment presented here was a result of teaching specific students, but may hold true for various facets of the discipline. Considering the current context, where choice of font is available at a mouse click, the exercise becomes extremely important to act as a rudimentary level course in order to familiarize novices with the lateral side of the discipline, yet satisfy students with their rationale queries and the medium of analogy through which instructors can answer them fully.

In most of the earlier traditional practices, "not knowing" was never related to the domain of 'tools,' but always focused on the 'task.' With new tools of execution, maximum effort is spent on understanding the tool rather than involving oneself in the depths within the task. The task concludes as a result of the novice's knowledge about the tool, as a result the communication objective as well as learning becomes distorted. The objective of this exercise is to encourage collaborative environments for learning, where physical participation, dialogue and involvement with a purpose (task) are of prime concern. This experiment is an attempt to balance the future of design education, namely traditional and modern ideas, through recognizing and associating rational thinking with exploration and creativity.

Acknowledgement

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