

Chapter 6

Summery, Findings and Conclusions

6.1 Introduction

6.1.1 Design Education

Design is the successful relationship between aesthetics and technology. Designing therefore is a procedure that combines the creative skills of an artist, the technological skills of a craft person and the knowledge of technology. A designer always works to a pre determined brief. They aim to produce innovative solutions to a particular human need that can be produced at competitive price. Design synthesizes purpose and process.

Design education aims to provide knowledge and experience of the process of design as well as an understanding of the purpose of design and how they affect people and society. It is about making students think (that is recognize and solve problems) in the context of concepts materials and tools. Traditionally Design Education is seen as an extension of handicraft in that the technical and manipulative competence which was the aim of handicraft course is used as the medium for developing design thinking skills. Design is all about problem solving, and the purpose of design education is to prepare them to meet problems in design, and solve them.

In art, the artist gives more importance to the message which is to be conveyed, and the skill is taken a back seat; art demands only minimum skill which is required to convey the message that is very person specific. No generalization happens here. In the case of a craft it always deals with the importance of skill and the intellectual activity becomes less important. It is all about production rather than visualization. But in design there is an amalgamation of art and craft. Equal roles are given to visualization and production. And it demands a generalization to a certain extent because it always has a target audience. In design logical thinking is necessary not just intuitive creativity. So a lot of parameters have to be taken into consideration in designing. So design needs a lot of inputs from skill development as well as visualization.

Teaching a course in design is inevitably more demanding than teaching a handicraft course, for the teacher has to continuously balance apparently conflicting requirements. Clearly the teacher must impart skills, technical competence but at the same time the teacher must foster the student's imaginative potential and help him/her to acquire the questing, exploratory attitudes that are fundamental to any success in designing.

The complexity of planning and operating the course should not however confirm the simplicity of its aim. It is intended to establish the skills, attitudes sensitivities and procedures which, at however rudimentary a level, will facilitate the activity of designing and making.

6.1.1.1 Design

Design describes the activity of people who create products and systems that satisfy human needs and improve people's life. It is concerned with the research, planning, design, design development and production of a wide range of products.

6.1.1.2 Training of the designer

In design education, traditionally there are many approaches; different approaches were adopted in different time periods. Some are as follows

- Artists' Guilds
- The academies
- The Bauhaus approach
- Elements and principles approach
- Institute of design approach
- The unstructured approach

Today's approach:

Recently, however there has been a trend towards accountability and a return to basics in general education. This trend has carried over to the design students too and the demand for structure is increasing each year and will be still grater in the future.

6.1.1.3 Constructivism

The term refers to the idea that learners construct knowledge for themselves---each learner individually (and socially) constructs meaning---

as he or she learns. Constructing meaning is learning; there is no other kind. The dramatic consequences of this view are twofold;

- We have to focus on the learner in thinking about learning (not on the subject/lesson to be taught):
- There is no knowledge independent of the meaning attributed to constructed experience by the learner, or community of learners.

6.1.1.4 Principles of learning

Some guiding principles of constructivist thinking are outlined below, all predicated on the belief that learning consists of individuals' constructed meanings and then indicate how they influence design education.

8. Learning is an active process in which the learner uses sensory input and constructs meaning out of it. The more traditional formulation of this idea involves the terminology of the active learner (Dewey's term) stressing that the learner needs to do something; that learning is not the passive acceptance of knowledge which exists "out there" but that learning involves the learner's engaging with the world.
9. People learn to learn as they learn: learning consists both of constructing meaning and constructing systems of meaning. Each meaning we construct makes us better able to give meaning to other sensations which can fit a similar pattern.
10. The crucial action of constructing meaning is mental: it happens in the mind. Physical actions, hands-on experience may be necessary

for learning, especially for design students, but it is not sufficient; we need to provide activities which engage the mind as well as the hands (Dewey called this reflective activity.)

11. Learning is a social activity: our learning is intimately associated with our connection with other human beings, our teachers, our peers, our family as well as casual acquaintances. We are more likely to be successful in our efforts to educate if we recognize this principle rather than try to avoid it. Much of traditional education, as Dewey pointed out, is directed towards isolating the learner from all social interaction, and towards seeing education as a one-on-one relationship between the learner and the objective material to be learned. In contrast, progressive education (to continue to use Dewey's formulation) recognizes the social aspect of learning and uses conversation, interaction with others, and the application of knowledge as an integral aspect of learning.
12. Learning is contextual: we do not learn isolated facts and theories in some abstract ethereal land of the mind separate from the rest of our lives: we learn in relationship to what else we know, what we believe, our prejudices and our fears. On reflection, it becomes clear that this point is actually a corollary of the idea that learning is active and social. We cannot divorce our learning from our lives.
13. One needs knowledge to learn: it is not possible to assimilate new knowledge without having some structure developed from previous knowledge to build on. The more we know, the more we can learn. Therefore any effort to teach must be connected to the

state of the learner must provide a path into the subject for the learner based on that learner's previous knowledge.

14. Motivation is a key component in learning. Not only is it the case that motivation helps learning, it is essential for learning. This idea of motivation as described here is broadly conceived to include an understanding of ways in which the knowledge can be used. Unless we know "the reasons why", we may not be very involved in using the knowledge that may be instilled in us. Even by the most severe and direct teaching.

A major theme in the theoretical framework of Bruner (1966) is that learning is an active process in which learners construct new ideas or concepts based upon their current/past knowledge. The learner selects and transforms information, constructs hypotheses, and makes decisions, relying on a cognitive structure to do so. Cognitive structure (i.e., schema, mental models) provides meaning and organization to experiences and allows the individual to "go beyond the information given".

As far as instruction is concerned, the instructor should try and encourage students to discover principles by themselves. The instructor and student should engage in an active dialog (i.e., Socratic learning). The task of the instructor is to translate information to be learned into a format appropriate to the learner's current state of understanding. Curriculum should be organized in a spiral manner so that the student continually builds upon what they have already learned.

Design education today needs, to take from the best elements of all the above approaches and to put them into one course of study relevant to the present.

NID (National Institute of Design) is one of India's premiere institutes for design education. It was established in 1962 with an objective to train people to cater to various Design needs. To fulfill the various needs in different areas of design it offers courses in the following specialized courses; they are

Product design, Furniture & interior Design, Toy design, Textile design, Apparel Design, Life style accessory Design Graphic Design, Animation Design, Film and Video Design, New Media Design, Interface and Digital Design, Software and User Interface Design, Strategic Design Management and Exhibition Design.

When we look at the time allotted to color and form study it is three week units in the third semester and given three week units in the fourth semester. This is after they have done a four week units in the foundation program. (Foundation program is a one year common course for all design students before they enter their specialization. During foundation program they undergo all basic courses and develops a good understanding and skill which will work as the base for any discipline they choose after the foundation program.) The color and form studies occur at three levels .One is of four weeks in foundation which focuses on basic

skill, application and theories. Second and third courses happens in the third and fourth semester, that is after they enter their specialized discipline, which focuses more on color interaction ,psychology and practical application.

This is an indication of the importance of color and form studies in Design Education.

6.1.2 Color and Form: How we see objects

Visual communication relies both on eyes that function and a brain that makes sense of all sensory information received. An active, curious mind remembers and uses visual messages in thoughtful and innovative ways. Knowing about the world and the images that it conveys will help you analyze picture. And if you can examine pictures critically, you have a good chance of producing high quality images that others will remember. General knowledge of the physics of light, how the eye focuses light, how the retinas collect light and how the brain processes, sorts and stores light is important because camera and computer construction is based on some of the same principles. Knowledge of the physics and physiology of light will enhance your use of the technologies of the future and the ability to decipher innovative visual messages.

6.1.2.1 Color Theory:

Color theory encompasses a multitude of definitions, concepts and design applications. All the information would fill several encyclopedias. As an introduction, here are a few basic concepts.

The Color Wheel

Primary colors

Secondary colors

Tertiary colors

Color Harmony

Color Context

Successive contrast

Simultaneous contrast

6.1.3 Importance of color and form; what brain sees.

It is the brain—not the eyes that understands visual messages. Therefore to consider how the mind processes the visual information it receives from the eyes is vital. The brain processes images as four basic visual perception cues. (Color, form, depth and movement). Knowing how the brain divides and sorts visual messages will help you create images that take advantage of that knowledge.

6.1.4 Need for color and form studies in Design Education

In nature Form itself is defined by color. Color cannot be seen in isolation, the perception of color is always related to many factors like culture, psychology, geographical region, context and associated meanings.

6.1.5 Color and culture

Different cultures have different meaning for the same color. For example, white would be an inappropriate color for a wedding in China.

It is the color of mourning. If a bride chooses a white wedding gown, her parents would probably not allow her to get married. In India, even in Christian weddings, while most brides wear white, it is usually relieved by at least a touch of some other color. If a married woman wears unrelieved white in India, she is inviting widowhood and unhappiness.

Let us take the evolution of the symbolism of green in Western culture: In Celtic myths the Green man was the God of fertility. Later in the millennium, early Christians banned green because it had been used in pagan ceremonies. Nevertheless, as evidenced by the 15th Century wedding portrait, by Jan VanEyck the color green was the best choice for the bride's gown because of its earliest symbolism. Of note is the continued symbolism attached to the color in the latter part of this century. Anyone who chooses a green m & m (an American candy which contains an assortment of different colored chocolate sweets) is sending a somewhat similar message. Green has been reinterpreted by late 20th century American culture to signify a state of heightened sexuality in this specific situation.

Green was a sacred color to the Egyptians representing the hope and joy of spring. Green is a sacred color to Moslems because when we look at the land which Islam was originated; green is the color of oasis, which is the hope and life in a desert land. Japanese Emperor Hirohito's birthday is celebrated as "Green Day" because he loved to garden .In this case

Japan is a country where land is very scarce. So a garden is one of the biggest luxuries. This explains the culture specific meanings to a color.

Universal symbolism: But apart from this there are certain meanings which are not region or culture specific. These symbolic meanings are universally accepted for example green is associated to Nature and freshness in any part of the world irrespective of the region.

Contemporary symbolism: Now in the contemporary context we have another symbolism which is derived from issues and other concerns. For example the same color green is associated to ecologically beneficial aspects of the world. When we say "green" it means it is eco friendly," green design "refers to environment friendly design.

6.1.6 Color, Gender and psychology

What we see and interact with is in color, includes both natural and built environments. About 80% of the information which we assimilate through the sense is visual. However, color does more than just give us objective information about our world-it affects how we feel. The presences of color become more important in interior environment, since most people spend more time inside than outside. Is there a gender difference in response to color? Although findings are ambiguous, many investigations have indicated that there are differences between genders in preferences for colors. Early investigations done by Guilford (1934) on the harmony of color combinations found that a person is likely to see

balance in colors that are closely related or the opposite. Guilford also found some evidence that more pleasing results were obtained from either very small or very large differences in hue rather than medium differences, with this tendency more frequent in women than men. A review of color studies done by Eysenck in early 1940's notes the following results to the relationship between gender and color. Dorcus (1926) found yellow had a higher affective value for the men than women and St. George (1938) maintained that blue for men stands out far more than for women. An even earlier study by Jastrow (1897) found men preferred blue to red and women red to blue. Eysenck's study, however, found only one gender difference with yellow being preferred to orange by women and orange to yellow by men. This finding was reinforced later by Birren (1952) who found men preferred orange to yellow; while women placed orange at the bottom of the list. Guilford and Smith (1959) found men were generally more tolerant toward achromatic colors than women. Thus, Guilford and Smith proposed that women might be more color-conscious and their color tastes more flexible and diverse. Likewise, McInnis and Shearer (1964) found that blue green was more favored among women than men, and women preferred tints more than shades. They also found 56% of men and 76% of women preferred cool colors, and 51% men and 45% women chose bright colors. In a similar study, Plater (1967) found men had a tendency to prefer stronger chromas (color) than women.

More recently, Radeloff (1990) has found that women were more likely than men to have a favorite color. In expressing the preferences for light versus dark colors, there were no significant differences between men and women; however, in expressing the preference for bright and soft colors, there was a difference, with women preferring soft colors and men preferring bright ones.

Color choice is very specific to one's personality. Colour has been used for the study of one's personality. Once the color choice is made, the personality can be studied. Luscher has made an in depth study in this area.

6.1.7 Color and geography

The living environment affects the liking and disliking for color. For example people from Arabian countries mostly uses green as their flag color because the color green contrasts with the general back ground of the landscape which is yellow ochre of the deserts. In the case of Kerala where the land is full of greenery, and the people are dark in complexion, the most preferred color for the traditional dress is off white, which contrasts with both the nature and body colour. Another example is Rajasthan where the landscape color is dry ochre and the dress color is bright reds, blacks and yellows. These examples show the general preference of color and geographical conditions of the place.

6.1.8 Color Context

Color appears different in different backgrounds. Red appears more brilliant against a black background and somewhat duller against the white background. In contrast with orange, the red appears lifeless; in contrast with blue-green, it exhibits brilliance. The red square appears larger on black than on other background colors.

Observing the effects colors have on each other is the starting point for understanding the relativity of color. The relationship of values, saturations and the warmth or coolness of respective hues can cause noticeable differences in our perception of color.

6.1.9 Associated meanings

There are many associated meanings to most of the colors. For example, Red is associated with danger almost universally because the color of blood. Blood coming out of the body is the sign of some danger happened to the body, so a bleeding body is associated to some danger happened to them. Since this is a universal phenomenon, the color red is associated with danger.

So a clear understanding of all the aspects of color is necessary for a designer to create a design which communicates to the maximum with a specific population.

6.1.10 Importance of preparing an instructional strategy for learning about color

Understanding of psychological, sociological, geographical, contextual and cultural meanings of color will head to the appropriate use of color and form in a design for maximum communication. So the preparation of an effective teaching learning material for color and form is important for Design Education.

6.2 Rationale of the study

Color is one of the most important elements in communication. Color defines the form, and so a study on color implies a study of form also. We learn the implications of usage of color from nature primarily. For example: sky which is far away is blue and so distance is associated with vast patches of blue. Similarly Red is associated with danger universally because of the color of blood. Also meaning of color is related to the cultural context and geographical regions.

Psychology of the viewer, relative size of the Color and foreground and background are some of the other factors which affect the perception of color. In Visual Communication the right usage of color and form helps in effective communication. So a study of color and color interaction is one of the most important subjects for a communication design study.

The appropriate use of color and form can be taught- The teachers can provide their principles with adequate knowledge, opportunities and

materials for practice and teach them the use of tools and methods of work. By having a clear understanding of how sociological and cultural implications affect the meaning of color; a designer can put it in right use to achieve effective communication with target audience. Another important aspect is the knowledge of the science of color; which is important in learning the interaction of colors and how color behaves on different backgrounds.

Looking at the prevailing situation of teaching color and form and from the studies reviewed the investigator has not been able to find any structured course in color and form studies. And the following questions have aroused in the mind of the investigator. Are the teachers teaching color and form really conscious of the purpose for which this course is taught? Are they teaching all the aspects like sociological, psychological, cultural, geographical and scientific aspects while teaching this course? Are they using appropriate methods and techniques for teaching? Do the teachers use proper techniques and methods which will give proper exposure to the students whereby they can get adequate opportunities to the acquisition of clear understanding of practical application of color theory? Can anything be done to improve the situation?

With a view to find out the methods to improve the learning, the investigator has taken up the study. The investigator has tried to find out the methods to improve the sensitivity of design students towards the application of color and form in their designs. The research will not only

help and guide the work of the researcher but also will guide all the design teachers who wish to teach color and form in any design institute.

6.3 Research Questions

What should be the structure of the course for teaching color and form course for design education?

What problems the students could face while using color and form?

Will there be any considerable change in the use of color and form for communication by the students who are taught through a set of instructional strategies? What are the parameters for judging the effectiveness of the learning by the students who are taught through new set of instructional strategies for color and form?

6.4 Problem statement

"A STUDY OF THE DEVELOPMENT AND EFFECTIVENESS OF AN INSTRUCTIONAL STRATEGY ON TEACHING THE COURSE IN COLOUR AND FORM FOR DESIGN EDUCATION."

6.5 Objectives of the Study

1. To identify the difficulties faced by the students while using color.
2. To prepare a instructional strategy for teaching the course in color and form for design education

3. To study the effectiveness of the prepared instructional strategy

6.6 Operational definitions of terms used

Effectiveness

Extend to which goals are achieved for which the instructional strategies are designed. In the present study the effectiveness will be measured in terms of appropriate, contextual and more communicative use of color in a given problem and project.

Strategy

Strategy is a number of teaching or instructional methodology brought together in order to achieve the pre set objectives

Color

The most technically accurate definition of color is "the visual effect that is caused by the spectral composition of the light emitted, transmitted or reflected by objects."

Design

Design describes the activity of people who create products and systems that satisfy human needs and improve people's life. It is concerned with the research, planning, design, design development and production of a wide range of products. Design is problem solving with aesthetics

Design Education

It is a professional education program where design is taught.

6.7 Limitations of the study

This study is limited to design students and to one batch of post graduate students at National Institute of Design.

6.8 Methodology of the study

Methodology is the processes and procedures one adopts while doing a study in order to achieve the particular objective specified.

6.8.1 Design of Research

Single group pre intervention test intervention post intervention test, design was employed for the present study. The differences in achievement between the two tests were taken as effectiveness of the prepared instructional strategy.

6.8.2 Tools used for the study

The present study required detailed information about the difficulties faced by students in using color and form in a design problem for maximum communication and their level of knowledge in the subject before the intervention.

The tools used for the purpose of collection of the required data are as follows:

1. Questionnaire for students which was developed by the investigator in order to understand the difficulties the students had in the learning process.
2. A pre intervention test and post intervention test in the form of a one day equivalent assignments both before and after carrying out intervention following the prepared instructional strategy.
3. Pre intervention Focused Group Discussion .
4. Feed back on a continuous basis.
Students' feedback of their experiences was taken by discussion and it was conducted on a continuous basis throughout the intervention.
5. Observation of student works by the investigator.
6. Post intervention Focused group discussions.

6.8.3 Sample of the Study

The target population of the present study refers to all design students. As it is not feasible to bring all these students under the present study, it was decided to take one batch of post-graduate students from the National Institute of Design (NID), India's premier design Institute. The subjects for the present study comprised of all the students of first semester of post graduate program, ceramic and glass design of National Institute of Design, in the year 2004-2005. There were 12 students in the batch when the study took place out of the total 12 students 9 were girls and 3 were boys.

6.9 Procedure of the study

The investigator has divided the present study into four phases.

6.9.1 Assessment of students prior to intervention

- 1 Implementation of a questionnaire to the students
- 2 A pre intervention test
- 3 Focused Group Discussions of the pre intervention test work and questionnaire with the students.

6.9.2 Development of the instructional strategy

In the second phase the investigator prepared an instructional strategy on color and form considering the problems and difficulties faced by the students.

The instructional strategy contained the following section:

7. Discussions
8. Assignments
9. Projects
10. Lecture (Theory inputs)
11. Supervised work
12. Documentation

6.9.3 Implementation

During the implementation of the strategy, the students were provided with a series of learning experiences as discussed in Phase II. The course abstract which contains the course contents and evaluation criteria was

given to the students before the implementation of the strategy. The learning experience was divided into different sessions. The duration of the sessions varied according to the requirement of the topic. The theory inputs were delivered as lecture and slide shows. Then supervised work with practical demonstrations was conducted whenever required. Assignments and projects were given to ascertain and strengthen the learning happened through theory lectures. Discussions were conducted in the class in groups as well as one to one discussions. All the works done in the class were documented. Each assignment was discussed in the class student wise and feedback was given for further refinement. The student refined each work till the expected result was achieved.

6.9.4 Post intervention assessment of students.

After successful completion of the learning experience, a post intervention test in the form of one day equivalent assignment was administered. And focused group discussions on the effectiveness of the course were conducted.

6.10 Data Analysis

With the help of questionnaire, pre intervention test and focused group discussion, the data for the first objective were collected and analyzed qualitatively. After the analysis an instructional strategy for teaching the course on Color and Form was developed by the investigator. After the implementation of the course the effectiveness of the course was checked

through analyzing the data obtained from the post intervention test and the focused group discussion.

All the data collected were qualitative and they were analyzed qualitatively by assigning different categories.

6.11 Findings

For effective communication, the right use of color is very important. In nature form is defined by color and the perceptions of colors are always related to many factors like culture, psychology, geographical region, and context and associated meaning. Different cultures have different meaning for the same color. Also the living environment affects the liking and disliking for a particular color. And gender also affects the personal preferences of color.

The skill level of the student represents their precision and sense of understanding in color mixing. There has been a marked change in the skill level of the student as per the education they received. Lack of skill affects the application and eventually it affects the effective communication of the product.

Knowledge of science of color was also lacking at the entry level. Design being a fusion of art and technology; an understanding of the science of color is inevitable for getting the desired result. So an input in science of color is important in color and form studies.

The concept of color interaction was never considered in most of the institutes where color was taught. Color changes its appearances according to the back ground and gives different appearances as the background changes. In design the appearance plays a major role and input in color interaction is vital in color and form studies.

The personal preference of color is based on the personality of every human being. Human liking and disliking is influenced by the culture and geographical conditions in which they were born and brought up. So a study of the influences of culture and geographical locations on color preferences is also an important factor in color and form studies in design education.

From the analysis of the data pertaining to the objective one it was found that the entry level of the students were varied and the inputs received in their previous courses had a lot of discrepancies in the content of the course which is required for Design Education.

In Design, as there is a target audience or a consumer at the receiving end, it is very important to understand all aspects while learning about color and form.

After looking at the methods of teaching color; it was found that a combination of methods like discussion, both individual and group,

feedback on assignments, lecture, practical work, survey and research helped the students to acquire all relevant aspects of Color and Form.

The instructional strategy which was developed by the investigator contained the above mentioned methods in the teaching learning process. And after the implementation it is found that there is a definite change in the skill and sensitivity in color application. There is a marked improvement in conscious application of color in all the students' work. The students reported that they started to make use of the psychological aspects of color and its meaning in to consideration in a design problem. Use of color became methodical and scientific. The students started to take the effects of color interaction into consideration. As a result the product became more communicative.

From the analysis of the data it was found that

1. Ability to apply color on the composition with appropriate control has improved.
2. The students are able to articulate the theories of color with more clarity.
3. The students reported that the application of color became more conscious
4. Understanding of the contrast of color and its usage has shown a positive change in 85% of students' post intervention work.

5. All students' involvement in doing the assignment has changed for better.
6. Ability to use the effect of color interaction in the assignments in 91% cases of students has improved.
7. The students reported that the concept of color preferences of people with cultural context, religion, geographical region and gender are well understood.
8. Level of understanding of tint, shade and hue has strengthened and well demonstrated through assignments for all students.
9. Sense of composition and communicative quality of the product improved in the works of 91% of the students.
10. Use of color became methodical and scientific
11. The students reported that the relative proportions of color are well understood.
12. The students have been able to use color contrasts and color harmony to improve communicative quality of the product.
13. The students have learned to use the colors with the proper knowledge of the meanings of color.
14. The right usage of terminology was clear to the students.

6.12 Conclusion

The students who join the institute of design to learn design are from varied background such as fine arts, architecture, and engineering. Some students never had an input of color in their previous course. Others have

received some inputs in color but not all aspects of color which is required for a designer. The students who received inputs in color had mainly gone through some color application techniques, mainly dealing with some specific materials which they were using at that point of time.

After looking at the methods of teaching color; it was found that a combination of methods like discussion, both individual and group, feedback on assignments, lecture, practical work, survey and research is what is required in teaching all relevant aspects of Color and Form.

The instructional strategy which was developed by the investigator contained the above mentioned methods in the teaching learning process. And after the implementation it is found that there is a definite change in the skill and sensitivity in color application. There is an improvement in conscious application of color. The students started to make use of the psychological aspects of color and its meaning in to consideration in a design problem. Use of color became methodical and scientific. The students started to take the effects of color interaction into consideration. As a result the product became more communicative.

6.13 Implications

The study shows that an instructional strategy containing all the aspects of Color and Form with a combination of appropriate methods like discussion, both individual and group, feedback on assignments, lecture,

practical work, survey and research will enable the design students to use Color and Form in a design problem for maximum communication.

This study could be understood as an exploratory study, which proved to be beneficial to both students and the design teachers alike. This methodology could be adopted by other teachers to teach the course on Color and Form. The guide lines used in developing the instructional strategy and the methodologies used for instruction with appropriate modifications can be used for developing and implementing other courses in design education too.

6.14 Suggestions for further Research

A research is a fact finding mission seeking to find answers of some pre decided questions. But often it happens than when answers of those questions are found out, the researcher may be posing some new questions .These new questions are often suggested as areas of further study. This study also suggests some areas for further study.

The study has shown that the development of a course with proper theoretical inputs, practical applications research with combinations of methods like discussions, both individual and group, feedback on assignments, lecture, practical work, survey and research is helping the student to learn the subject very well. There are many other courses in design education. There is a need for developing other courses also with the appropriate methods needed for those particular subjects.

Design education in India is in a growing stage with the economical changes. More and more design schools are coming up. A study to develop a system of teaching learning methods to train design teachers is a necessity of the time.

“What should be the time allotment for each subject on design in order to achieve optimum learning?” A research to answer this question may become a pathfinder to many institutes who are trying their best to find out the time allotment of each subject for optimizing the learning. Investigations in the above areas would be quite meaningful and beneficiary for a country like India where the government has decided to start more and more design schools.