

la situación actual, ese equilibrio no existe. La mayor parte de lo que aprenden apenas tiene en cuenta los métodos del diseño.

Esto nos retorna al argumento más fuerte contra el método por casos en la enseñanza del diseño. Si el equilibrio anteriormente mencionado debe ser nuevamente establecido, entonces ningún método que dé preferencia al análisis más que a la síntesis puede ser pertinente para una materia que trata de conseguir resultados opuestos.

## ENSEÑAR EL DISEÑO MEDIANTE PROYECTOS

Enseñar el diseño a los managers a través de los proyectos tiene como propósito aumentar su conocimiento y apreciación de los tres recursos del diseñador antes examinados.

El método de proyectos también nos ayudará a practicar lo que predicamos; y más bien «practicar» que «predicar». El conocimiento será resultado de aprender por medio de hacer. Será probable que haya pocos libros —incluso ninguno— para leer. Habrá pocas conferencias o «ejemplos de casos». Los alumnos hablarán de los productos, los manejarán y los crearán. Para hacerlo, intentarán practicar al menos unas cuantas habilidades visuales. Emplearán los métodos de los diseñadores para resolver el problema de negocios que estará en el corazón del proyecto.

No harán ninguna de estas cosas a un nivel muy alto. Al equilibrar la balanza de su formación general, no es probable que este proceso consiga más que alguna necesaria educación terapéutica. Pero sobre todo, ya que esta clase de alumnos sin duda formarán un grupo de una inteligencia y cultura altas, el conocimiento y la apreciación que la práctica habrá estimulado serán rápidamente absorbidos.

Durante los diez últimos años, más o menos, la enseñanza del diseño por el método de proyectos en la London Business School probablemente ha resultado más cara que enseñar por el método por casos, o incluso por las otras maneras de enseñar más tradicionales. Sin embargo, una parte importante de tal coste se puede atribuir al desarrollo del proceso. Estos costes no necesitan repetirse. En efecto, hemos llegado al punto en que podemos entregar la metodología a otros.<sup>7</sup>

Si la disponibilidad del método de proyectos como manera rentable de enseñar se puede hacer más extensiva, entonces se habrá dado un paso importante hacia adelante en la enseñanza de diseño a los managers. El diseño es una de las herramientas más poderosas que los managers tienen a su disposición. Hace falta usar una herramienta para poder apreciarla. El método de proyectos le permite hacer precisamente eso.<sup>8</sup>

# P

## ROJECTS, NOT CASES.

### How to teach about design to managers

The need to teach design to managers no longer needs to be argued. Although a relatively new subject, pioneered in 1976 at London Business School,<sup>1</sup> it has been taught there on a full time basis since 1982; and programmes at American and Scandinavian business schools are now under way. Lately at the initiative of the US Design Management Institute a seminar was held at Harvard Business School at which academics discussed the *how* rather than the *why* of the subject.

The focus has shifted from arguing about whether to teach the subject, to the method of putting it across. At that meeting in the heartland of the «case method» I suggested that *projects* not *cases* were the way to win managers and business students to the design cause.

To design teachers, experienced in the project method, the arguments may seem unnecessary. However, project teaching is by no means a universal method in business schools, and design teachers, and certainly those business school teachers who are beginning to teach design, should be aware of the arguments for the project method.

## TEACHING THROUGH PROJECTS

The project method as a way of teaching has a well established history. Military academies have always used it and so have many industrial trainers. In certain specialist areas, and design is a prime example, project teaching has always been extensively used.

The project system is rarely used in the more academic subjects. But, in vocational and professional subject areas (medicine, law, engineering and business studies), it is surprising that the use of projects is much rarer than would be expected.

The reason may be that a long established and popular method exists, which has challenged and has often replaced the lecture system. It is of course the case method. Nowhere has this method been more intensively cultivated than in the field of business and management studies. I know of no business school that does not use it, and many use it for the majority of their teaching.

7. Gorb, Peter, McGurk, Kevin, Schneider, Eric, *Teaching Design by the Project Method. A Record of a Design and Innovation Course*, London Business School, 1987.

8. Este ensayo ha sido adaptado de un artículo publicado en el Reino Unido en *Management Education and Development*, vol. 18, Pt 4, 1987.

1. *The Design Management Unit* at London Business School, Information Leaflet, October 1989.

## THE CASE METHOD

The general arguments for the use of the case method were first made at the turn of the century in the USA, and were fully developed in business studies at Harvard Business School over forty years ago. They are based on the proposition that if learning is the basis for future and improved action, then its starting point cannot be only «general laws» for action. If learning is to be realistic, it must go back to the experiences on which those laws are based. By the constant re-iteration of cases a cumulative and fast track to knowledge is provided.<sup>2</sup>

But there is an important argument against the case method. Case teaching is particularly useful in the development of analytic and decision making skills. It also enables students to articulate their arguments effectively and express them with a high degree of literacy and numeracy in written and verbal reports. These skills are essential to the successful manager. However, by themselves they are not enough. Newly hired business school graduates are recognized as being good at sorting out concepts and proposing courses of action, but not very good at getting things done, and emphasizing reflection and analysis rather than action.

These arguments are of particular relevance to the teaching of design in general. However before discussing them we need to explore the objectives behind the teaching of design to managers.

## TEACHING DESIGN TO MANAGERS

The aim of teaching design to managers is not to turn them into designers. It is to enable them to *manage* better. It achieves this by making them aware of the value of the resources which designers have at their disposal, and helping them to use these resources, either directly (after training in their use) or indirectly by managing design trained people.<sup>3</sup>

The designerly resources themselves fall into three groups. The first of these is an interest in and a care and concern for artefacts. To the educated westerner these attitudes do not come easily. Most of them (and business school students are certainly amongst them) are influenced by a culture which gives precedent to ideas over artefacts, to concepts rather than things practical, and the spiritual rather than the material.

Yet artefacts pervade the business world. They constitute the products that manufacturing industry makes and sells, or that the distribution industries buy in order to sell, or that services industries use in order to be able to provide their services. They also constitute the physical environment in which all business operate. They comprise the information systems which managers use to convey their purposes to a wide variety of audiences.<sup>4</sup>

Managers must learn to manage artefacts as well as people if they are to achieve profits. Design training can provide them with the awareness of artefacts, which is the necessary pre-requisite to managing them.

The second resource which design can provide comprises the *skills* needed to manage those artefacts. These designerly skills can be described as «visual literacy».

The ability to draw can of course be learned, like any other kind of literacy. So too can the skills of using models and analogues to represent visual and spacial processes and relationships. Yet the teaching of such skills is sadly neglected in our educational system. Most business school students have highly developed skills of literacy and numeracy. But very few of them are visually literate. Yet if artefacts pervade the business world then the skills to interpret, make plans about and manipulate these artefacts are surely essential skills for a manager, whether he uses them himself, or employs others to do so.

The third, and perhaps the most valuable resource which designers offer is their way of thinking and working. Designers give precedence to synthesis over analysis in their approach to problems; their concern is to find out how before they find out why. This route to knowledge does not follow the scientific and scholastic tradition.<sup>5</sup>

That tradition has strongly influenced business and engineering education. We talk of management and decision *sciences*. Engineering is too often studied as a quasi, or applied science. It is rare to find the design approach to knowledge dominating engineering as it used to before the subject was captured by the academics.<sup>6</sup>

Obviously the *benefits* of science itself have greatly advanced management competence. But the *methodology* of science is of less help with the action based problems of the business world. But the designer's methodology, a «hands on» re-iterative process, concerned directly with the «how» of the problem can be of great value to the operating manager.

Competent managers need an appropriate balance of scientific and design method. However, as things stand, that balance does not exist. Most of their learning does not take much account of design methods.

This brings us back to the strongest argument against the case method in teaching design. If the balance described above is to be redressed, then a method which gives precedence to analysis over synthesis can hardly be appropriate in a subject which is trying to achieve the opposite results.

## TEACHING DESIGN BY PROJECTS

Teaching design by projects to managers is to help them increase their awareness and appreciation of the three designerly resources discussed above.

The project method will also enable us to practise what we preach; and «practise» rather than «preach». Awareness will be an outcome of learning by doing. There are likely to be few or no books to read. There will be very little lecturing or «case examples». Students will talk about, handle and

2. Cragg, Charles I., *Because Wisdom Can't Be Told*, Harvard University, 1951, Case Clearing House, Boston, Mass.

3. Lethaby, W. R., *Education for Appreciation or for Production*, Paper to Education Conference Southport, 1916, reprinted privately by British Thorton Ltd, February 1982.

4. Gorb, Peter, «The Business of Design Management», *Design Studies*, vol. V, n.º 2, April 1986.

5. Simon, H. A., *The Science of the Artificial*, MIT Press, 1982.

6. Lewin, D., «On the Place of Design in Engineering», *Design Studies*, vol. I, n.º 2, 1979.

create products. To do so they will attempt and create products. To do so they will attempt to practice at least some visual literacy skills. They will make use of designers' methods in solving the business problem at the heart of the project.

They will do none of these things to a very high level. By redressing a balance in their general education, the process is likely to achieve no more than some necessary remedial education. But above all, because students of this kind are likely to be a highly intelligent and educated group, the awareness and appreciation aroused through practice will be rapidly absorbed.

Over the past ten years or so, teaching design by the project method at London Business School has probably been more expensive than teaching by the case method, or indeed the other more traditional ways to teach. However, a significant part of that cost has been in the development of the process. Such costs need not be repeated. Indeed we have reached the point when we can pass on the methodology to others.<sup>7</sup>

If the project method can be made more widely available as a cost effective way to teach, then a major step forward will have been made in teaching managers about design. Design is one of the most powerful tools that managers have at their disposal. You need to use a tool in order to appreciate it. The project method enables you to do just that.<sup>8</sup>

7. Gorb, Peter, McGurk, Kevin, Schneider, Eric, *Teaching Design by the Project Method. A Record of a Design and Innovation Course*, London Business School, 1987.

8. This paper is adopted from an article published in the UK in *Management Education and Development*, vol. 18, Pt 4, 1987.