

Case Studies on Universal Design

Case 3/Principle Three *Simple and Intuitive Use*

Worldwide Distribution Requires Simplicity in Product Assembly

IKEA, US, Inc.
IKEA Svenska AB
Almhut, Sweden
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When in Doubt, Read the Instructions

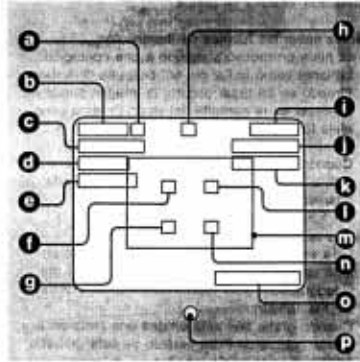
On the adjacent page is a portion of the 159-page manual for a Sony video camera sold in 1990. The illustration defines each of the 16 indicators that may light up in the viewfinder occasionally to inform the user of some vital bit of information.

Even subtracting the pages printed in French and Spanish, this manual was 80 pages long. In fact, the manual weighed exactly 1/3 of the camera itself (including the battery). And the camera was smaller.

Next to the Video Camera illustration is the Head-Up Display (HUD) illustration of an F-16 fighter simulator showing 13 indicators (3 fewer than the video camera viewfinder).

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Video Camera Viewfinder



F-16 HUD display

Video recording was not meant to be a more demanding task than flying a fighter jet. The user, far less skilled and practiced than a military fighter pilot, was probably more confused than aided by all this data. Moreover, the 80-page instruction book did little to clarify it and make it useful when Mom or Dad dusted off the camera for a Saturday afternoon trip to the zoo with the kids.

“Just Who Designed This, Anyway?”

Product instructions seemed to be written by someone with thorough knowledge and understanding of how the product works. In fact, they were often written by the product's design or engineering staff. Compounding these problems were illustrations which themselves were unclear and often related to a slightly (or very) different product offered by the manufacturer.

Anyone who needed the help of a child to assemble a toy or to program a VCR knew the frustration of reading product instructions. Most instructions seemed to be a result of less-than-perfect translation from another language into English, and this, in fact, was often the case.

Case 3/Principle Three

Simple and Intuitive Use

IKEA Design for Worldwide Distribution

Background

IKEA was a Swedish furniture manufacturer hugely successful in marketing its home furnishing products worldwide. From 1987-1991, IKEA doubled in annual sales to \$3.2 billion. In 1995, US sales reached \$511 million and \$5 billion worldwide.

A subsidiary of Ingka Holdings AB in Amsterdam, Netherlands, IKEA Svenska AB had 126 stores in 25 countries. The first of IKEA's US stores opened in Philadelphia in 1985.

IKEA derived its name from a brief history of the founder, **Ingvar Kamprad**, who grew up in Sweden on a farm called **Elmtaryd**, in the parish of **Agunnaryd**. Under Kamprad's leadership, IKEA set international standards for functional design, people-centered management, and creative marketing.

IKEA's catalogs were not only a marketing tool for their range of home furnishings, but also a vehicle for communicating the company's concern for family values and environmental issues.



From the IKEA catalog

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Designing for Assembly

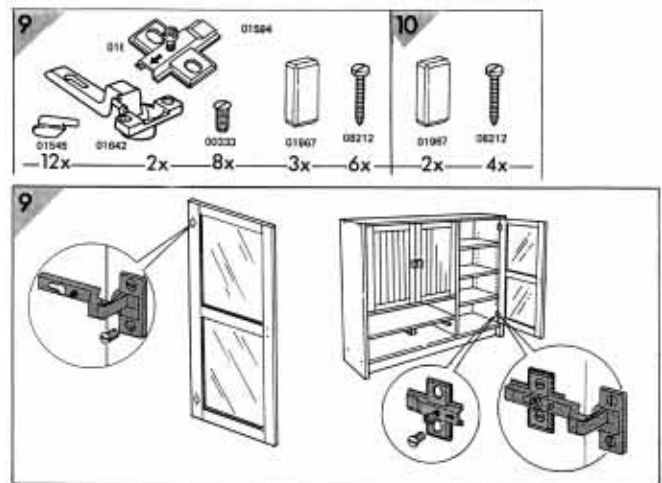
IKEA's furniture products were shipped in disassembled form for economy of manufacture and transportation, resulting in price advantage in the marketplace.

Economy and efficiency in manufacture was also extended to product assembly, with an added benefit. Not a word was included in these instructions, eliminating the cost and potential confusion in translation. Instead, simple illustrations detailed every step of assembly.

Consumers Union compared several brands of home furniture kits in a March, 1996 issue of

Consumer Reports. While complaining that the lack of text made the instructions hard to follow, *Consumer Reports* still rated IKEA products the easiest to assemble of the bookcases and home entertainment centers tested.

The clarity of the diagrams, with details of the proper location for each fastener, coupled with the simplicity of construction, made home assembly so simple that even an, um, adult could do it.



Portion of the assembly flyer for an IKEA home entertainment cabinet

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Video Cameras, Fighter Jets, and Furniture

The development of product assembly instructions and product use manuals often resulted in greater confusion than clarity, leaving the reader to find a child to figure it all out by simply picking up the pieces and fitting them together. Without the instructions, assembly became essentially a Tinker-Toy task, for which most adults had long since lost their qualifications.

Surely furniture assembly was not nearly as technologically complicated as flying an F-16 fighter, or even operating a video camera. But IKEA demonstrated the power of well-designed product instructions. Noted in the business world for its success through exemplary business practices, IKEA's most basic tenet was to "sell the same product in the same way in Houston as it could elsewhere in the world."

Surely the ease of assembly supported this idea; one with wide applications to other areas of product and environmental graphic design in the world marketplace.

References

Furniture from a kit. (1996, March). *Consumer Reports*, 61 (3), 38-41.

IKEA culture. (1996, March/April). *I.D. Magazine*, 43 (2), 70-75.