

Course of «Operations and audit quality»
Master degree in «Fashion, art and food management»
Parthenope University of Naples

PART ONE: directing the operation

Managing product and service innovation

Rita Lamboglia, Full Professor, Ph.D.
Department of Business and Economics- Parthenope University of Naples
rita.lamboglia@uniparthenope.it

A general model of operations management

PART ONE: directing the operation

PART TWO: designing the operation


PART THREE: deliver

PART FOUR: development

PART ONE: Directing the operation

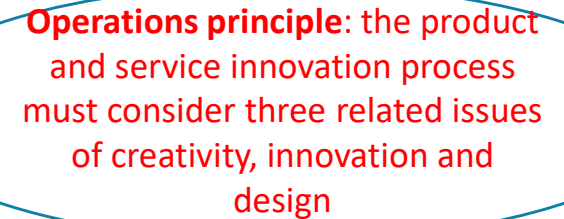
1. Operations management
2. Operations performance
3. Operations strategy
4. Managing product and service innovation
5. The structure and the scope of operations

Managing product and service innovation- Key questions (Agenda)

- What is product and service innovation?
 - What is the strategic role of product and service innovation?
 - What are the stages of product and service innovation?
- 
- A solid blue horizontal bar spanning the width of the slide, located at the bottom.

What is product and service innovation?

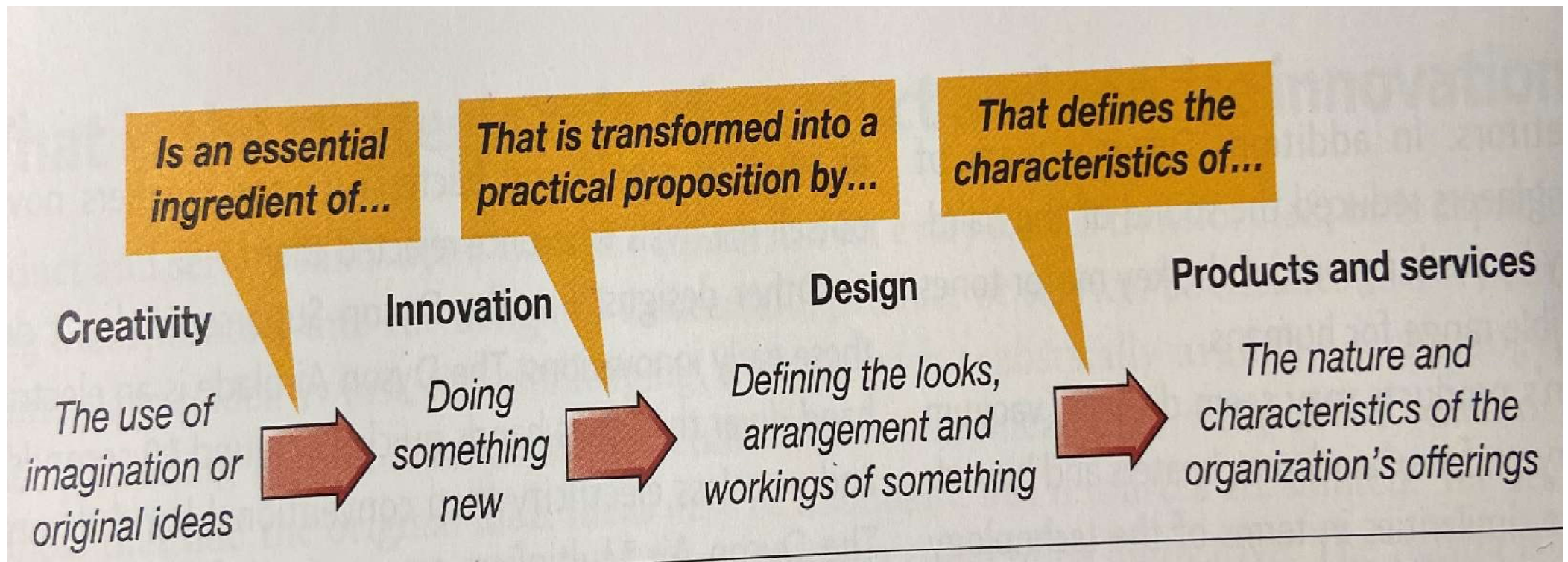
CREATIVITY, INNOVATION and DESIGN



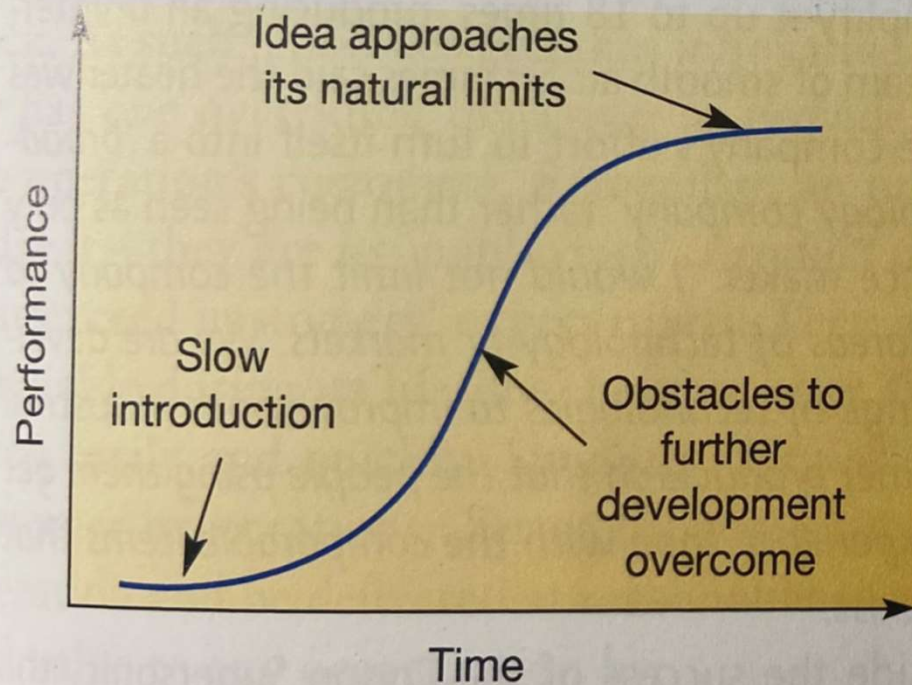
Operations principle: the product and service innovation process must consider three related issues of creativity, innovation and design

1. **CREATIVITY** is the ability to move beyond the conventional ideas, rules or assumptions, in order to generate significant new ideas. It is a vital ingredient in innovation
2. The term «**INNOVATION**» is ambiguous and lacks either a single definition or measure. It is... «a new method, idea, product» (Oxford english dictionary) «change that creates a new dimension of performance» (Peter Drucker, a well-known management writer) «the act of introducing something new» (the American Heritage Dictionary)
3. **DESIGN** is the process that transform innovative ideas into something more concrete. Innovation creates the novel idea; design make it work in practice

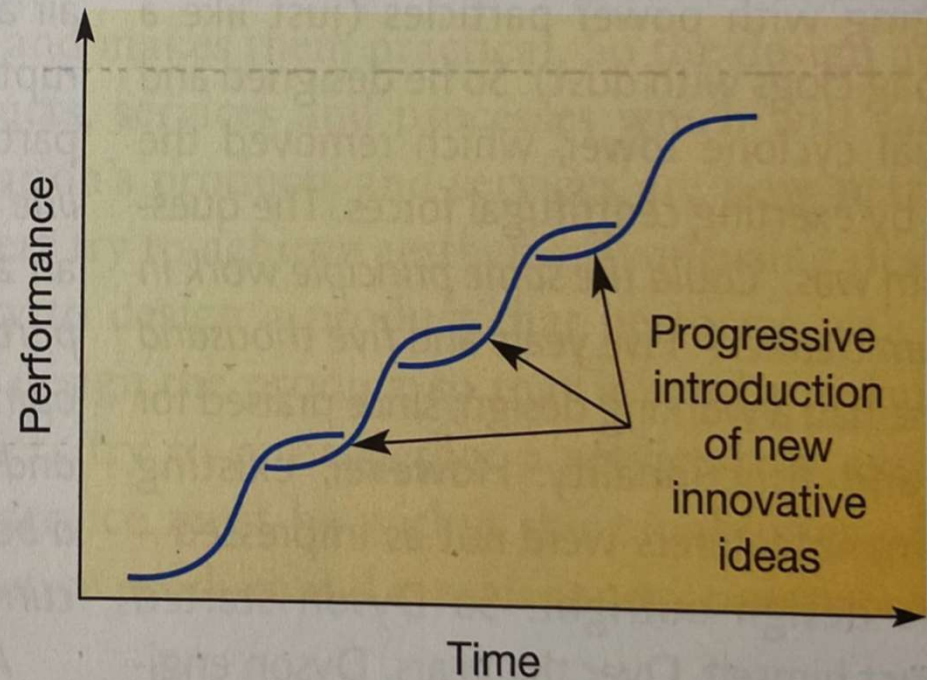
The relationship between creativity, innovation and design



The S-shaped curve of innovation



(a) The basic S-shaped improvement in performance



(b) Innovation following multiple S-shaped curves

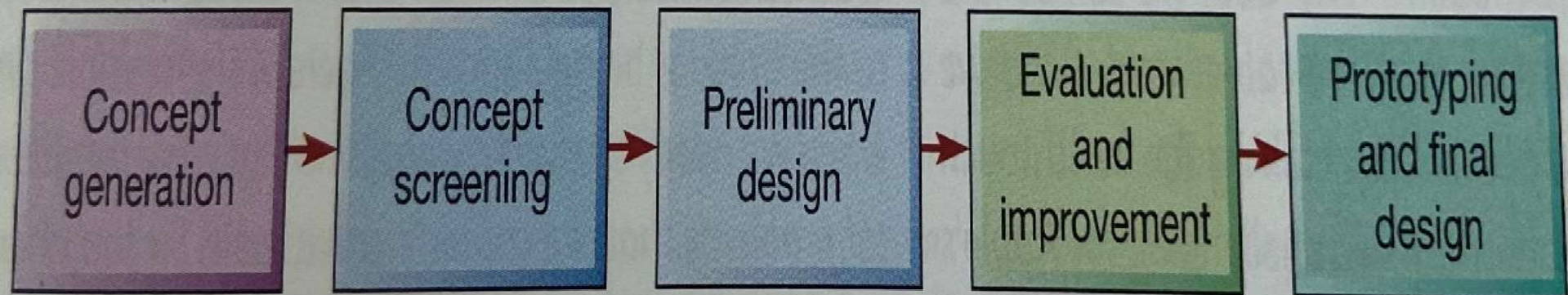
What is the strategic role of product and service innovation?

- Product and service innovation is a risk business! Not every idea is transformed, or is capable of being incorporated, into the design of a successful product or service
- Yet... despite the obstacles to successful innovation, almost all firms strive to be innovative. THE REASON IS THAT THERE IS EVIDENCE THAT INNOVATION CAN GENERATE SIGNIFICANT PAYBACK FOR THE ORGANIZATIONS THAT MANAGE THE INCORPORATION OF INNOVATIVE IDEAS IN THE DESIGN THEIR PRODUCTS AND SERVICES
- Effective product and service innovation processes add value to any organization by:
 - ✓ driving and operationalizing innovation, increasing market share and opening up new market;
 - ✓ making products and services more attractive to customers;
 - ✓ reducing the overall costs associated with innovation, through more efficient use of resources, reduced project failure rate and faster time to market

What are the stages of product and service innovation?

Operations principle: design processes involve a number of stages that move an innovation from a concept to a fully specified state

To create a fully specified service or product offering, potential designs tend to pass through a sequence of stages in the innovation process

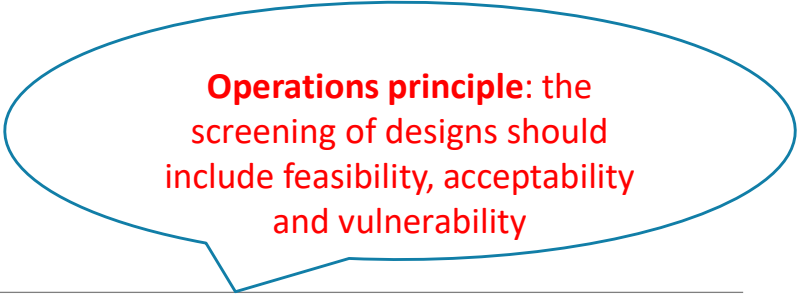


1- Concept generation

Concept generations is where the innovative ideas become the inspiration for new service or product concepts; and innovation can come from many different sources, both from within the organization and from outside

1. **Ideas from research and development-** many organizations have a formal research and development (R&D) function. Research develops new knowledge and ideas in order to solve a particular problem or to grasp an opportunity
2. **Ideas from staff-** staff may have good ideas about what customers like and do not like. They may have gathered suggestions from customers or have ideas of their own.
3. **Ideas from competitor activity-** most organizations follow activities of their competitors
4. **Ideas from customers-** marketing may use market research tools for gathering data from customers in a structured way to test out ideas or check services or products against predetermined criteria

2. Concept screening



Operations principle: the screening of designs should include feasibility, acceptability and vulnerability

- Concept screening is the first stage of implementation where potential innovations are considered for further development
- It is not possible to translate all concepts into viable product or services packages. **Organizations need to be selective!**
- The purpose of concept screening is to take initial concepts and evaluate them for their:
 1. Feasibility (Can we do it?)
 2. Acceptability (Do we want to do it?)
 3. Vulnerability (What are the risks of doing it?)

Some typical evaluation questions for marketing, operations and finance

Table gives typical feasibility, acceptability and vulnerability questions for marketing, operations and finance functions

Evaluation criteria	Marketing	Operations	Finance
Feasibility	Is the market likely to be big enough?	Do we have the capabilities to deliver it?	Do we have access to finance to develop and launch it?
Acceptability	How much market share could it again?	How much will we have to reorganize our activities to deliver it?	How much financial return will there be on our investment?
Vulnerability	What is the risk of it failing in the marketplace?	What is the risk of our being unable to deliver it acceptably?	How much money could we lose if things do not go to plan?

3- Preliminary design (1)

- The first task in this stage of design is to define exactly what will go in the product or service
 - For service- dominant offerings this may involve DOCUMENTATION in the form of job instructions or
 - For product- dominant offerings, preliminary design involves defining products specifications and the bill of materials, which details all the components needed for a single product.
- This stage offers significant opportunities to to reduce cost through design simplification. The most elegant product and service innovation are often the simplest

Iphone 14 and Iphone 14 plus specifications

iPhone 14 and iPhone 14 Plus - T x +

apple.com/iphone-14/specs/

Gmail YouTube Maps Traduci Posta - RITA LAMB... 1

iPhone 14

Overview Switching to iPhone Tech Specs Buy

Size and Weight²

Model	Height	Width	Depth	Weight
iPhone 14	5.78 inches (146.7 mm)	2.82 inches (71.5 mm)	0.31 inch (7.80 mm)	6.07 ounces (172 grams)
iPhone 14 Plus	6.33 inches (160.8 mm)	3.07 inches (78.1 mm)	0.31 inch (7.80 mm)	7.16 ounces (203 grams)

Display

Model	Display Size	Resolution	PPI
iPhone 14	6.1-inch (diagonal) all-screen OLED display	2532-by-1170-pixel resolution	460 ppi
iPhone 14 Plus	6.7-inch (diagonal) all-screen OLED display	2778-by-1284-pixel resolution	458 ppi

The iPhone 14 display has rounded corners that follow a beautiful curved design, and these corners are within a standard rectangle. When measured as a

The iPhone 14 Plus display has rounded corners that follow a beautiful curved design, and these corners are within a standard rectangle. When measured as a

22°C Preval. nuvol.

16:42 21/10/2022

Premium frozen beef burgers-specifications

Specification Information Frozen

kenwilsonmeats.co.nz/specification-sheet-burgers/

Gmail YouTube Maps Traduci Posta - RITA LAMB...

Premium Frozen Beef Burgers

General Information:

113g per Pattie (Quarter Pounder) | 100% Pure Ground Beef | No added ingredients | Pure beef flavour | Ideal for Summer BBQ's

INGREDIENTS:

Beef

NUTRITIONAL PANEL:

per 100g	
Energy	1057kJ
Protein	17.7g
Fat, Total	20.1g
Fat, Saturated	10g
Carbohydrates	3.7g
Sugars	0.9g
Sodium	354mg

Bulk:

Packaging:	Easy to use Resealable Zip-locked Bag Frozen Free Flow 15 Patties per Bag 6 Bags per Carton
Labelling:	Nutritional & ingredient information provided on packet
Pricing:	Priced per unit /carton

Last Name

Contact Number

Email

Details

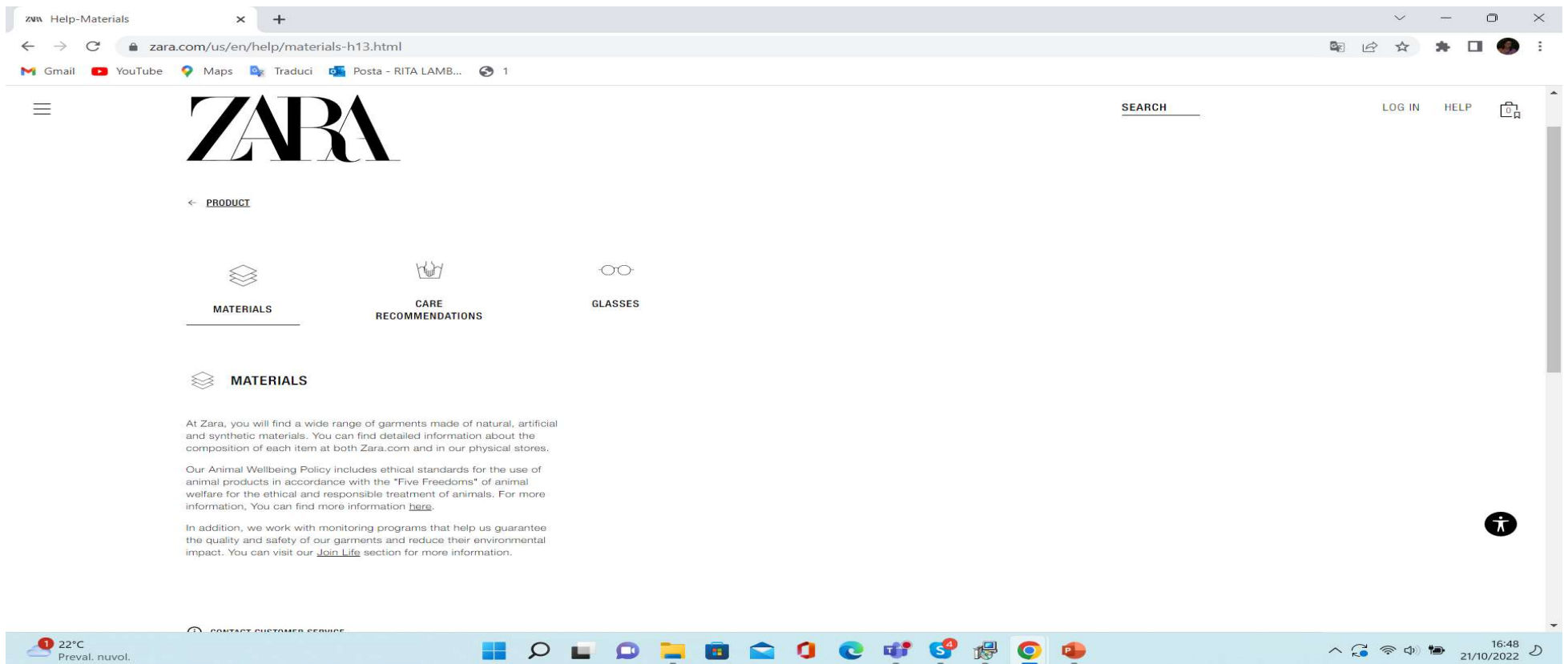
Submit

Privacy Policy

22°C
Preval. nuvol.

16:46
21/10/2022

Specifications in ZARA clothes



The screenshot shows a web browser window displaying the ZARA Help-Materials page. The browser's address bar shows the URL `zara.com/us/en/help/materials-h13.html`. The page features the ZARA logo at the top center, a search bar on the top right, and navigation links for LOG IN and HELP. Below the logo, there is a breadcrumb trail: `< PRODUCT`. The main content area is divided into three sections: MATERIALS, CARE RECOMMENDATIONS, and GLASSES. The MATERIALS section is currently selected and contains the following text:

At Zara, you will find a wide range of garments made of natural, artificial and synthetic materials. You can find detailed information about the composition of each item at both [Zara.com](#) and in our physical stores.

Our Animal Wellbeing Policy includes ethical standards for the use of animal products in accordance with the "Five Freedoms" of animal welfare for the ethical and responsible treatment of animals. For more information, You can find more information [here](#).

In addition, we work with monitoring programs that help us guarantee the quality and safety of our garments and reduce their environmental impact. You can visit our [Join Life](#) section for more information.

At the bottom of the page, there is a footer with the text `CONTACT CUSTOMER SERVICE`. The browser's taskbar at the bottom shows the system clock as 16:48 on 21/10/2022, along with various application icons and network status indicators.

3- Preliminary design (2)

Operations principle: a key objective in preliminary design should be simplification through standardization, commonality, modularization and mass customization

Designers adopt a number of approaches to reduce design complexity. These include:

1. **Standardization-** is the process of creating protocols to guide the creation of a good or service based on the consensus of all the relevant parties in the industry
2. **Commonality-** commonality means to using common elements within a services or products. The more different services and products can be based on common components, the less complex it is to produce them
3. **Modularization-** *is the process of separating the functionality of a program into independent, interchangeable modules, such that each contains everything necessary to execute only one aspect of the desired functionality.*
4. **Mass customization-** *a business process of providing customized goods and services that best meet individual customer's needs*

4- Evaluation and improvement

The purpose of this stage is to take the preliminary design and the subject to a series of evaluations to see if it can be improved before the service or product is tested in the market

5. Prototyping and final design

- At around this stage in the design activity it is necessary to turn the improved design into a prototype so that it can be tested
- It is usually more appropriate to create a «prototype» (in the case of a product) or «trial» (in the case of a service)
- Product prototypes include everything from clay models to computer simulations
- Service trials may include computer simulations but also the actual implementation of the service