

# 1. Introduction

## 1.2 Focus of the research

So that all readers are aligned with terminology, there is a need to break down the main research question and frame each of the terms that compose the aforementioned question.

**Designers:** For the purpose of this research, we decided to focus on academically trained designers as a definition of designer. It seems that the existence of design as an academic degree justifies the inquiry we are pursuing. It is understood this might ignore many degrees with the word 'design' in them.

While design training is a growing trend among large corporations (Kolko, J., 2018), until further proof neither a good nor bad thing, simply should not invalidate the core question of this doctoral thesis. On the other hand, executives have training in many other areas and that does not in itself invalidate the need for executives specialized in certain areas. Designers can also aspire to manage design or any other area, since many other executives may manage areas different from the ones they were academically trained on, as stated in recent research 'to get a job as a top executive, new evidence shows, it helps greatly to have experience in as many of a business's functional areas as possible' (New York Times, 2016).

A recent study (Design Council, 2017) defined what design meant for the purpose of their study. The authors did that by focusing on design skills, starting by identifying 23 occupations that make up the UK design Economy using Standard Industrial Classification (SIC) codes, and they mapped these against the US SOC Codes found in the Department of Labor's O\*NET Database, reduced those skills to 13 that were above average importance across the 23 occupations. Further, they identified additional occupations which all say knowledge of design is important to their work, as well as two other skills on the list. Their objective was to analyse UK Government data sets and calculate the economic value workers using these skills contribute, and ultimately discuss if there is enough being done to promote and develop these skills.

The referred research focus was more on defining design skills needed, than designers themselves, and traced those skills to education syllabus and were capable of stating that, in the UK 'in 2017, just under 166,000 students took design and technology subjects, a 61% decrease from the year 2000' p.10. That is the reason why their definition of Designers includes a large number of design occupations that include, as examples, the ones in 'Figure 1'.

For the purpose of this research, and following the United States Department of Labor/ Bureau of Labor Statistics definition of a Designer is someone with formal education in any of these areas:

- Commercial and Industrial Designers

- Graphic Designers
- Fashion Designers
- Interior Designers
- Set and Exhibit Designers
- Media and Communication Workers
- Artist and Related Workers
- Architecture

We are aware that, if there were to be a strict definition of design, then areas like Media and Communication, Artist and Related should not be included, but data suggests these are all understood as ‘Creative areas’, and recruiters and hiring managers tend to place these majors in the same group as creative majors.

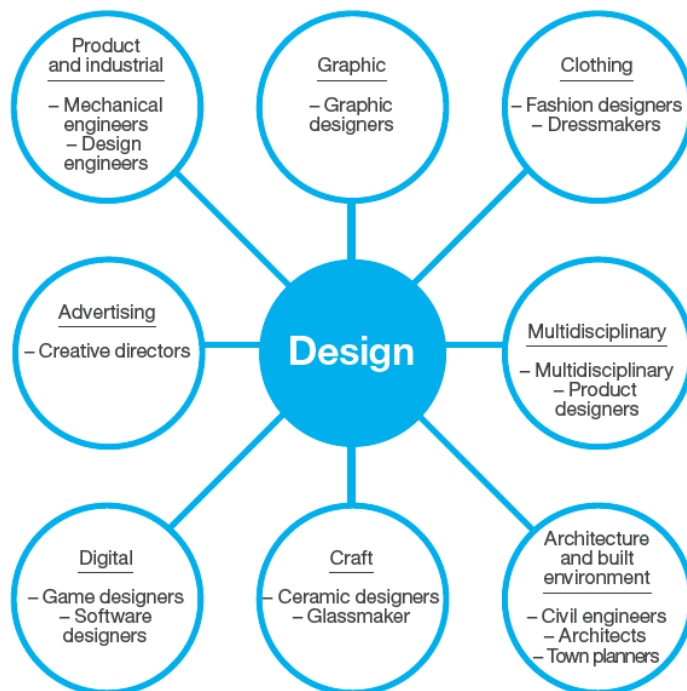


Figure 1 - Examples of design occupations, Design Council 2017, p. 18.

While the question underpinning this research clearly states ‘designer’, not ‘design trained’, it is important to acknowledge and research if there are in fact executives with formal design training in the F500 corporations. Design training, for

the purpose of this research, is the top skill that differentiates design (importance premium 40% - skills which were deemed by designers to be of above average importance for their role) from the work done by the Design Council in defining “Design (doing) – Knowledge of design Techniques, tools and principles involved in production of precision technical parts, blueprints, drawings and models” (Design Council, 2017, p.7) in ‘Table 1’. The importance of design doing is real because the majority of the corporate innovation by design is still executed by trained designers (Merholz & Skinner, 2016, p.31).

We have decided to add to design training a second set of skills around what is generally considered design thinking: ‘a discipline that uses the designer’s sensibility and methods to match people’s needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity’ (IDEO, 2008). The growth of design thinking training in corporations is a reality that needs to be accounted as a part of design growth and awareness in corporations. Though there is an active debate on the term itself (Natasha, J., 2017), on the perception of what it delivers (Vinsel, L. 2017), on the impact generated by the training, on the possibility of existing separate from design doing, it is undoubtedly a reality in the design world that cannot be overlooked. This is supported by an enormous amount of design executive training (Kolko, J., 2018).

While secondary research identified Bachelor degree training for many of the executives accessed through publicly available data sets, there is some visibility of MBA training but very little visibility of other formal design training. There are many discussing in the design arena as to what consists adequate design training, if it is more time related (1 day, versus 1 week, versus > 1 month training) or origin related (a bona fide design school). Although very interesting as a topic, for the purpose of this research, while primary research undertaken shines some light on what type of design training professionals engaged, this research will not attempt to judge or qualify the training, it will just become a data point open to insight generation.

Table 1 - Skills that differentiate design, Design Council 2017, p.29.

Skill	O*NET 'domain'	Importance premium	O*NET definition
Design	Knowledge	40%	Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
Operations analysis	Skills	23%	Analysing needs and product requirements to create a design.
Programming	Skills	22%	Writing computer programs for various purposes.
Drafting, laying out and specifying technical devices, parts and equipment	Work Activities	20%	Providing documentation, detailed instructions, drawings, or specifications to tell others about how devices, parts, equipment, or structures are to be fabricated, constructed, assembled, modified, maintained, or used.
Engineering and technology	Knowledge	18%	Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures and equipment to the design and production of various goods and services.
Fine arts	Knowledge	15%	Knowledge of the theory and techniques required to compose, produce and perform works of music, dance, visual arts, drama and sculpture.
Technology design	Skills	10%	Generating or adapting equipment and technology to serve user needs
Building and construction	Knowledge	9%	Knowledge of materials, methods and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
Computers and electronics	Knowledge	5%	Knowledge of circuit boards, processors, chips, electronic equipment and computer hardware and software, including applications and programming.
Geography	Knowledge	4%	Knowledge of principles and methods for describing the features of land, sea and air masses, including their physical characteristics, locations, interrelationships and distribution of plant, animal and human life.
Visualisation	Abilities	3%	The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
Thinking creatively	Work Activities	2%	Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.
Interacting with computers	Work Activities	1%	Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.