

IS SPECIALIST DESIGNER AN OXYMORON? THE VALUE OF SPECIALISATION IN THE DESIGN FIELD

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ABSTRACT

“Jack-of-all-trades, master of none” is a figure of speech that suits generalists well. Having special knowledge is usually confused with being an expert. Does it mean that a non-specialist or a generalist is not an expert?

Curriculums of many design schools provide a generic design education, which enables designers to work across fields. Maintaining disciplinary boundaries may deepen in-depth knowledge within the field; on the other hand, developing a design curriculum encouraging students to move across disciplines produces designers who are able to work well in collaborative teams or facilitate other domain experts.

This study examines the influence of this dichotomy on how we perceive expertise and recognise its value by investigating its roots in design education. Twenty-four semi-structured interviews with individuals representing SMEs and external designers were reflected on to investigate difficulties of communicating design expertise resulting from the specialist generalist dilemma.

The results of this paper will inform a designer’s job identity, protecting and sharing design territory and providing insights for design education

Keywords: Specialisation, specialist, generalist, design education, expertise

1 INTRODUCTION

Many design schools have redesigned their programs to reflect a broadening of the scope of the various professions. For instance, Graphic Design and Illustration have become 'Communication Design'; and Industrial Design has evolved into 'Product Innovation' [1]. On the other hand, new sub-design disciplines are emerging, such as interaction design, service design and process design. Universities are trying to establish projects supporting cross-pollination between students of different departments; for instance bringing product, jewellery and communication design students together to work on the same projects.

Design has flourished and migrated into diverse areas and many professionals from other disciplines migrated into the design field. These dynamics influence the specialisation in the design discipline. Some boundaries of design are disappearing day to day; this change may require new definitions for these disciplines. Various professions in the design field are changing; within that, expected level of expertise and the role of design are also changing. Boundaries are part of definitions; the question surrounding disappearing boundaries suggests that disappearing definitions and lenses for recognising expertise remain.

The generalist specialist dichotomy in design and some other fields of business management is an existing discussion that has not yet been resolved. Krippendorff says, “designers who know a little bit of everything, none too deeply, are universal charlatans” [2]; this provocative statement illustrates the lack of credibility of design generalists. The quotation, “An expert is someone who knows more and more about less and less” by the philosopher Nicholas Murray Butler emphasises the potential disadvantage of specialisation. One could argue that it is a result of being broadly curious or deeply curious while other studies claim that it is a result of professional choice namely in-house designers as specialist and design consultants as generalists [3]. This view, in-house designer/specialist and design consultants/generalists, is also observed during the interviews which informed this study. Still, whether designers are specialist or generalist is a matter of confusion, and this confusion is not limited to the examples from different authors; even one person can have conflicting ideas about this subject. For instance, Norman (in 2011) argues “designers are not generalists; they are specialists in design,

and what they offer is a unique point of view and approach to problem solving” [4]. Later, on the contrary, Norman (in 2012) claims, “great designers are generalists, knowing a little about many different topics” [5]. There are many more examples and provocative discussions in the literature and academic forums questioning whether designers are specialists or generalists [6][7].

Maintaining disciplinary boundaries may deepen in-depth knowledge within the field; on the other hand, developing a design curriculum encouraging students to move across disciplines produces designers who are able to work well in collaborative teams or facilitate other domain experts. Mayer claims that education is founded on characteristics of expert performance in the domain, and elements of instruction need to be formally evaluated for their effectiveness [8]. The dichotomy, either false or not, is critical as a lens to establish the effectiveness of elements of design education on providing the right guidance and on design graduates securing employment.

This study particularly looks at how this dichotomy affects the collaboration between designers and SMEs. SMEs comprises over 99% of all businesses in the UK, and due to their lack of internal resource knowledge they often source expertise externally [9], and working with design consultants is a result of this need. In total twenty-four interviews were conducted with nine SME owners and directors and fifteen designers who work with SMEs externally. Interviews were undertaken using a semi-structured interview schedule over a ten-month-period in the UK. The nine SMEs operate in different industries including food, sport, aqua, software, oil and gas. They were selected based on whether they had worked with designers internally or externally in the last two-three years.

2 THE SPECIALIST GENERALIST DICHOTOMY

2.1 Specialisation and environment

Specialisation is not only a debate of the design discipline; other disciplines are also discussing the generalist-specialist dichotomy. The business writer Casserly examines the subject through metaphors, namely koalas as specialists and mice as generalists [10]. Looking at this dichotomy through metaphors is constructive since metaphors can aid our understanding of unapproachable concepts [11]. Analysing these metaphors by their implications contributes to the discussion given that metaphors are not the ornaments of language; they shape the way we perceive the world [11] [12]. The basis of Casserly’s generative metaphors is that each creature resides on a species scale of generalists to specialists; a koala bear is a specialist creature and its life depends on a set of conditions: diet (eucalyptus), climate (warm) and environment (trees), while a mouse as generalist animal is an adaptive creature and able to survive in various habitats by tolerating cold/heat and eating almost anything. In her argument, she claims that being a generalist is more advantageous for surviving in a business environment because in nature specialisation decreases the life chance; thus specialists have fewer chances to survive in different conditions. While, generalists are able to adapt to changing environmental conditions and specialists tend to fall victim to extinction easily [13], a species with a highly specialised ecological niche is more effective at competing with other organisms than a generalist species [13]. Specialisation in the animal kingdom helps maintain enough resources for a large number of species and diversity in the animal kingdom.

Specialisation may benefit the wider design community, but this may be place-specific. Rusten and Bryson claim that Norwegian designers “try to help each other by providing referrals and recommendations to their friends in the design industry. This is possible in this sector especially with designers specialising in different types of product and expertise” [14]. From this study, one interviewee, a creative director working in North East Scotland, indicated that it is better to remain generalist than specialist in small cities because there is not enough room to specialise; “one ends up doing a bit of everything.” However, an Interviewee from a design consultancy based in the same region cited difficulties finding product design graduates with specialist understanding of the oil gas industry, the dominant local industry. Presumably, it is not possible to support multiple specialists, thus, might the specialist-generalist dichotomy be place-specific and sector-specific?

Table 1 illustrates the themes that emerged from review of the literature and interview findings. The findings indicate the number of instances when an interviewee citing that theme. The review of the SME-designer collaboration stresses the themes such as creativity and problem solving, which were also cited in the interviews. Interviews findings indicated some other themes such as clear identity, trust and industry specific knowledge. The themes are discussed regarding the specialist generalist dichotomy in the following sections. Both strengths and weaknesses are exemplified.

Table 1. 'An evolving framework of factors informing SME and designer collaboration'

THEME	SMEs (out of 9)	DESIGNERS (out of 15)
Importance of clear identity	2	3
Importance of Problem solving abilities	5	5
Importance of Creativity	3	6
Importance of Industry Specific Knowledge	9	5
Credibility -Trust	5	7

2.2 Knowledge & skills

Based on the benefits of practicing as generalists, design education equips students with different skills and introduces various aspects of the design discipline to help them find jobs in various areas and embrace changing market conditions. Broadening the scope of design can be examined in two-folds, namely, practicing as a generalist regarding a sector or regarding design tasks.

Treating design as a way of thinking, or as a tool that can be applied to a broad range of contemporary issues, encourages a generalist-mind set. Buchanan says design has no special subject matter of its own [6]. Bauhaus school tradition and the designs thinking concept are based on this generalist mindset. Kolko believes that design education creates "generic" designers who lack deep skills and knowledge in their fields [7]. He notices that companies hire designers by means of their specific skills and knowledge within a narrowly defined area and thus claims the market needs more specialised design graduates. Companies want to work with the best employees who exemplify the skills specific to their businesses' domain. Therefore, design graduates who have a diverse selection of projects in their portfolio may find it difficult to persuade companies to secure their job [7].

How valuable is specialist knowledge when working with SME's? As shown in Table 1, the nine SMEs interviewed in this study, who often operate in traditional design and business markets and avoid risks; the majority indicated that their collaboration with design agencies started through "word of mouth" and references. All of the SMEs interviewees described designers as lacking knowledge in the domain in which those SMEs operate; specifically knowledge of market regulations, and competition, as well as technical knowledge such manufacturing or information management. Four SMEs mentioned concerns that missing information contributed to non-practical solutions. One SME that operates in an extreme sport industry offered; *"a good portfolio is not enough to take the risk and work with a design consultancy that has not designed a climbing wall or a skateboarding path before."*

Design practitioner interviewees also cited the importance of sector knowledge, with five of the fifteen raising this issue and another six interviewees describing it as a "confusing issue." One design consultant noted that although lack of knowledge is a problem; consultants invest a lot of their time in learning the necessary information and work with domain experts to address knowledge gaps. He admitted that *"...entering a new market, competing with the specialised rival companies without the products supporting your specialised experience is a big struggle. Also working with cross-fields does not help to get better deals."*

How does design knowledge and skills contribute to design task specialisation? Product designers, for instance, are expected to know rules of perception, ethnographic methods, social interaction, human activities, manufacturing methods, mechanics, materials, finance, how artefacts acquire meanings in use, as well as colour theory, typography, visualisation and styling. These are listed as the fundamentals of knowledge that enable designers to create artefacts that satisfy the needs of end users. Often these topics merge into the coverage of design studio and design students graduate with only a superficial idea and limited understanding of the theory behind these topics.

An SME working in aqua businesses clearly stated that he does not want to work with a "generic product design engineer", and instead he prefers to work with a marine design engineer. Two designers claim that describing their expertise as task specialisation, such as packaging design, brand development or design management or visualisation, can help SMEs to understand what consultancy offers, which suggests that design task specialisation helps to work across fields. While Interviewees

suggested that communicating expertise and expectations openly at the beginning of the project was a solution that worked for them, a project manager in a design-led business support centre found SMEs had very demanding expectations, with first-time design users considered naive and more demanding; therefore, making it more difficult to agree on expectations.

This study suggests two ways of specialising that benefit the design consultancy-SMEs collaboration: namely task specialisation, (concept development, visualisation, and cad modelling, branding and web development) and sector specialisation (retail, electronics, and health). Figure 1 illustrates that task specialisation allows designers to work in different sectors, and focusing one particular sector allows designers to accomplish different design tasks effectively. Figure 1 also shows developing expertise and widening the area of expertise with the corresponding numbers 1-5. The numbers represent that developing expertise happens gradually in parallel to acquired knowledge and experience. It proposes that at the beginning it is better to focus one sector and one task and widen expertise in one of the axes with time.

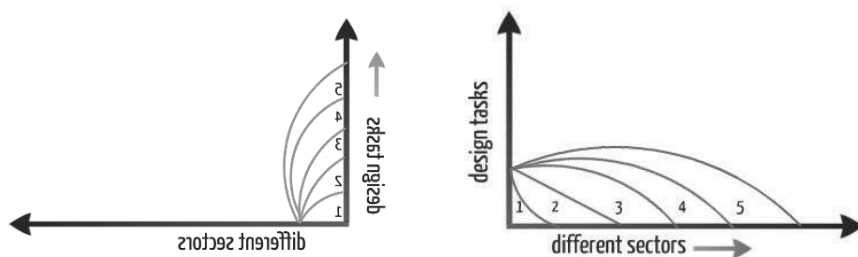


Figure 1. Task Specialisation and sector specialisation

2.3 Creativity and existing assumptions

Norman, in his talk to design students about a designer’s repertoire of knowledge, claims,

“One of the interesting thing about design is that you really do not know very much about the world; you do not know much about science; you may not know much about literature and history, and the fact you do not know very much is your most important strength; that’s why you are great designers. Because if you don’t know anything well; you are not stuck in the past; you are not stuck with the ideas of the field” [15].

He states that designers’ lack of knowledge is their “brilliance”, which enables them to ask various questions including stupid ones serving to reveal underlying assumptions [15]. Initiating and nurturing the “unlearning” process is important for the discipline to encourage designers to solve problems from a different perspective. Taking a fresh eye or keeping a Zen mind is significantly different from ignoring the importance of knowledge. The difference here is similar to being naive and approach naively, which exist in the phenomenological method. Spiegelberg states, “the phenomenological method is a subjective and intuitive effort to suspend the customary attribution of meaning to a phenomenon, and instead approach it naively so as to apprehend its ‘essences’ ” [16]. What Norman claims as brilliance may create one substantial problem; that is, allowing designers to overlook the specialist knowledge required for the project. Perhaps it started with the overload of design knowledge, a designer’s excuse, yet too often, designers are reluctant to admit that they might need more than a certain level of familiarity with the topic they work on, and they believe that generalist knowledge is sufficient for their practice as long as they ask the right questions.

Another issue covered in the generalist-specialist conflict is that too much expertise can kill creativity. Eckert *et al.* studied the relationship between expertise and innovativeness and argued that developing expertise may increase the efficiency of designers but also hinder their creativity [17]. One SME participant said that designers reach their expertise in ten years, and then the decline of creativity is usual if there is no new challenge. Surely, designers who prefer to work in a medium to large organisations develop their expertise gradually by working in that domain, will not deal with the blame of “being charlatans” but they have other conflicts. Pure disciplinarily might result in professional and creative isolation which prevents students from realising the creativity can be also social, not a lonely act [18]. Two SMEs working with in-house designers recognised the value of

knowledge and work delivered by generic design consultancies in the use of design facilitation skills to bring a breadth of perspective and new ideas.

There exists a lot of learning in different projects, which nourishes a whole design process; across and within sectors. One design-engineering consultant, who prefers to work in a variety of sectors, shared his belief that cross-disciplinary work helps to solve problems by applying a solution from another field. However, another design-engineering consultant who works solely in the oil and gas sector claimed that they cross-pollinate from different fields, applying such as medical, to solve their design problems. The difference here is in re-using of a solution from repertoire-own knowledge and experiences, versus using of a solution of a repository, the experiences of others. Even so, the majority of design interviewees shared that they believe working for one particular sector is less interesting and less fruitful.

3 CONCLUSION

This paper discussed the generalist-specialist dilemma, based on interviews of designers, SMEs, and designers within SMEs, and how they collaborate, and revealed the issues related to design education. It is not a fixed categorical rubric but a way of framing the issue. Communicating the value of design expertise clearly with SMEs is a continuous challenge. This study illustrated the difficulties reported by the interviewees from both perspectives, with particular attention to the value of specialisation.

Being a specialist or a generalist has tradeoffs and since design is a multifaceted discipline, it is vital to understand a designer's role in each organisation and situation individually and act accordingly. From external designers perspective, interviews reveal that specialisation yields more credibility to the collaboration because a lack of domain knowledge was viewed as less credible and could negatively affect the perceived value of design expertise in a problem-solving context. Similarly, designers who defined their specialism necessitated a high level of technical understanding or the need to work with technical experts whose inputs are resonant in the parameters of a project. Perhaps, a facilitator designer does not need to know the domain knowledge of each company s/he works. Keeping cross-pollination skills sharp and assisting a collaborative environment that yields each participant's best contribution are perhaps sufficient. Designers need to communicate their sector knowledge and task specialisation with SMEs to avoid misunderstandings and mismatched expectations.

This study supports that design education should endeavour to offer graduate designers the opportunity to develop the required knowledge and experience to identify and achieve specialist expertise. It also recommends domain specialisation to those designers whose setting or sector can accommodate specialists because domain specialisation is more likely to bring meaningful and in-depth contributions to a field, ultimately improving the collaboration between SMEs and designers.

This paper is part of an ongoing research that aims to strengthen design practice and help improve designer-client collaboration.

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