Towards a pedagogy that promotes the values of craftsmanship in a photography practice programme

A dissertation submitted by

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Abstract

In this research, I explore influencers that could clarify the idea of a photography practice pedagogy. This need is identified because pedagogic ambiguity exists in the creative practice fields in Higher Education.

The process towards clarification of photography practice pedagogy includes an enquiry of related constructs such as vocational Higher Education, a conceptual understanding of photography, an investigation into practice as a craft and knowledge conception and a pedagogic approach that suits photography as a creative vocational practice. The primary research elicits insights from photography practitioners.

Factors influencing a photography practice pedagogy are identified throughout the research process from related literature and participants in the primary research. The interpretive research approach, through a reflexive methodology, positions me as the primary research instrument. The research elicits influencers from photography students, teachers, and professionals through a semi-structured interview strategy.

Computer-assisted qualitative data analysis software was used to manage the interview data, identify codes, and generate themes for analysis. The data analysis produced three themes. Two themes, the nature of the medium of photography, and the nature of photography knowledge informed a third theme that describes the photographer persona's nature. A reflexive process guided the analysis of the themes towards conclusions and findings.

The findings propose a practice pedagogy with practice as the object of the pedagogy. Practice is located as the authority and invites all the influencers identified throughout the research to support this authority.

Declaration

I, Johannes Marthinus Mathee, declare that the thesis entitled "Towards a pedagogy that promotes the values of craftsmanship in a photography practice programme" and the work presented in the thesis are my own and have been generated by me as the result of my own original research. I confirm that:

o   this work was done wholly or mainly while in candidature for a research degree at this University;

o   where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;

o   where I have consulted the published work of others, this is always clearly attributed;

o   where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;

o   I have acknowledged all main sources of help;

o   where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;

o   parts of this work have been published as: N/A

Signed: _____

Date: _____30 January 2022_____

Acknowledgements

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1   Introduction

The focus of this research is on the teaching of photography as a commercially directed creative practice in a specific Higher Education (HE) setting. The term "pedagogy", in the title of this research, relates to the teaching and learning of photography practice in HE. There seems to be no clear consensus on an approach to the teaching and learning of a creative practice (Orr & Shreeve, 2018). This research interrogates a perceived pedagogic ambiguity in the teaching context of photography practice specifically and interrogates this ambiguity by probing the various factors that relate to the world in which this pedagogic construct exists.

Pedagogical discussions tend to gravitate towards theoretical understandings of and empirical research in conventional classroom teaching and learning settings as opposed to the teaching and learning of practice-related subject matter.

This research aims to contribute to the teaching and learning context of creative practice domains by using photography practice education as an investigative means. The skilled practice-based nature of photography locates the research discussion in a more focussed manner within the broader HE context. For Sennett, the development of skilled knowledge takes place in a twofold manner: as a tactile engagement of *being there* (my own emphasis), and as "powers of imagination" or the exploration "of language that attempts to direct and guide bodily skill" (Sennett, 2008, p. i). Understanding the practice of photography to understand the practice of teaching photography practice will be important in this thesis. An understanding of these two practices will require some reflection on historical and theoretical perspectives that describe these concepts.

The purpose of the research is to explore possible reasons for a pedagogic ambiguity and identify factors that could help clarify photography teachers' approach towards a photography practice pedagogy. The research question that underpins this enquiry asks:

"Which important factors can be identified as influencers of the approaches and methods of photography practice education?"

Influencers in this research point to factors that impact on the construct of the photography practice pedagogic concept. The factors considered in the research relate to questions that come to mind when I interrogate the purpose of photography education in my specific educational setting. For this research, these factors are broadly grouped under: i) the understanding of an educational construct in relation to the photography medium, to me, colleagues, students (present and past) and related literature; ii) the idea of photography practice; and iii) the notion of what photography knowledge is, to me, and to other practitioners and theorists, considering the course intention and the creative nature of the medium.

In essence, this research deals with two knowledge worlds: a social science-related educational domain and a photography practice domain, which is situated in the Humanities. In both worlds, there is an interplay between related structures and agency. The knowledge environment is then complicated and influenced by and not isolated from external factors but is dialectically shaped between society and the educational environment (Budd, 2019). Pedagogy, in this sense, deals with approaches and methods in the educational world that are foundational for agency in the photography world.

The knowledge worlds mentioned above may collide with or support each other or give birth to new ways of looking at this research problem. I am positive that the divergent ideas can complement a thinking process towards pragmatic thinking and conclusions. Alvesson and Sköldberg caution against becoming part of a research society that takes "for granted phenomena in [a] particular society to which they belong", which could lead "to pass[ing] on its fundamental values unconsciously" (2018, p. 218). As a researcher in this project, I am part of the two worlds mentioned earlier. I am therefore sensitised by Alvesson and Sköldberg to be constantly aware of my associations with photography practice and teaching practice as well as my theoretical preferences. I believe this awareness will allow me as a researcher to find the necessary reflexive distance within the broader dialogue between the associated worlds.

This research acknowledges three specific aspects of my persona. As an educator, I have three decades of involvement in a photography practice teaching environment. As a photographer, I have three-and-a-half decades of in-depth experience in analogue and digital photography. As a researcher, I am interested in the teaching and learning of a creative practice, with a specific focus on photography practice. My educator and photographer roles were, and are, characterised by Schön's notion of reflective practice (Schön, 1983). Reflection, in both these areas, demands constant self-evaluation, which loops back into successive practice. The practice-world, as I have experienced it, is multifaceted, unpredictable, revealing and demanding, and involves perpetual learning.

The complex nature of practice and the multiple knowledge worlds that influence this research make this project suitable for a reflexive research orientation (Alvesson & Sköldberg, 2018).

Reflexivity locates me as the researcher more critically as the research instrument (Cohen, et al., 2007; Hammersley & Atkinson, 2007; McCracken, 1988; Wellington, 2000) amid the factors that I regard as influencers of photography education. This form of reflexivity is not new. Archer (2010, p. 4) relates reflexivity's historical context back to Plato, who described it as an "inner conversation" towards "personal opinion formation". Gilgun (2010, p. 1) refers to reflexivity in this form as being "aware of multiple influences" by including personal "perspectives and experiences". Reflexivity, to Gilgun, takes cognisance of the researcher's "personal and professional meanings, views of participants in the research and the 'audiences' of the research" (Gilgun, 2010, p. 1.). Audiences, in relation to this research, refer to researchers and educators that can benefit from this research. The reflexive approach in relation to this project and research question is aligned with Alvesson and Sköldberg's (2018, pp. 380-382) dialectic suggested distinction between questioning "conventional thinking" and "developing something new". The overriding purpose of this reflexive stance is to problematize towards a new way of thinking about photography practice education.

My search is then directed towards a better understanding of photography teaching and learning, which I relate to an exploration of the code of photography. I will suggest that the code of photography is not covertly hidden but is instead contained in multiple understandings related to theoretical, political, institutional, and discipline-related technological and personal perspectives. Photography, like any other field, has a history that is influenced by multiple perspectives. As a reflexive educator and photography practitioner, I use this study to explore the links between the above-mentioned perspectives towards an interpreted photography practice pedagogy understanding.

The HE world where this empirical research took place is categorised as a University of Technology (UoT) in South Africa. The nature of this institution has undergone dramatic changes since its inception in the 1960s. One of the most significant changes has been the change to university status, away from the typical vocational training status it held under its classification as Technikon[1], and, prior to that, College for Advanced Technical Education. I believe this change has influenced the character of the institution and consequently the educational orientation and emphasis, which have ultimately affected practice-oriented courses such as photography.

1.1   Institutional changes that had an impact on photography education

The restructuring of the public (HE) educational environment in South Africa gave birth to three distinct HE institution types. Previously separate and traditional academic universities were combined into new but "similar" academic universities. Some universities were combined with Technikons to become a "comprehensive university", which resulted in a greater scope of educational programmes, ranging from professional to purely academic. Thirdly, some Technikons combined with other Technikons, and, as in our instance, remained as they were, apart from a name change from Technikon to University of Technology. This research is situated in the Vaal University of Technology (VUT), a former Technikon. This third institutional change is described by Ivy (2001, p. 276) as a "fundamental metamorphosis" that took place in South Africa and the United Kingdom (UK) at the same time.

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[1] A Technikon Higher Education institution is comparable to the polytechnic institutions found internationally.

The original institution from which the VUT sprouted was set up in 1966 as a College for Advanced Technical Education (Vaal University of Technology, 2017), one of six in South Africa (du Pré, 2010, pp. 5-6). In 1979, it became a Technikon and in 2004 was granted the status of UoT. Technikons were established to address the need for more highly skilled technicians as part of the general technical workforce needed by factories during the industrial age, whereas UoTs became technology-centred applied-research institutions (du Pré, 2009; du Pré, 2010; SATN, 2015).

The former Technikons fulfilled the above-mentioned role successfully, mostly because of a strong mandate provided at the time of conception. The newly established UoTs had to adapt to the new requirements that university status demanded. The industry-relevant commission was complemented by another commission – applied, problem-solving, technology-driven, world-class research (du Pré, 2009; Kongolo & Imenda, 2012). Du Pré proposed that "[w]hat UoT's then need to become are centres of technology excellence, and not try to duplicate what traditional universities are so good at, and are geared to do" (Du Pré, 2009, p. 17).

Amegashie-Viglo (2014) relates a similar institutional change in Ghana when the polytechnics in that country were promulgated as having university status in 1993 and "converted to Universities in 2016" (Dwomoh & Luguterah, 2020, p. 1). Whereas the South African change was characterised by an emphasis on research rhetoric, the Ghanaian development maintained the emphasis on industry-focussed education to "meet the expectations of industry" (Dwomoh & Luguterah, 2020, p. 14). Amegashie-Viglo reflects on the lack of "planning" and "birth... problems", including unqualified staff, that remained largely unchanged for the next decade (Amegashie-Viglo, 2014, p. 93). Ferguson (1999) reflects on a similar institutional context change in a New Zealand polytechnic, where she attempted a research intervention to remedy staff alienation from the new research-friendly institutional culture.

University status in South Africa demanded research outputs from staff that were accustomed to a teaching culture as opposed to a research culture. Soon, the number of research journal outputs,

conference papers and master's or doctoral qualification achievements became more pronounced than the customary industry contact, exhibition achievements, and student or staff acknowledgement in competitions and publications.

Mathiki argues that an opportunity exists for the newly established UoTs "to reinvent the university" (2014, p. 2127). In the change to UoTs, the established cultural capital of the previous Technikons was challenged and influenced towards a more university-correct culture, similar to what happened when former Teacher Education Colleges were absorbed into traditional academic universities during the same period of educational transformation (Becker, et al., 2004). I would posit that the operational plan that could steer academic transformation from one academic culture to another was rushed, parallel to what took place in Ghana, the UK and New Zealand (Amegashie-Viglo, 2014; Ferguson, 1999). The passionate teaching of vocational skills for satisfied industry was interrupted and transformed into something unfamiliar.

The reskilling of staff proved to be a challenge. The reorientation of staff towards a research culture required research guidance from suitably qualified staff. The research profile, culture and research guidance facilitation were expedited by the employment of PhD-qualified staff from traditional universities. Additionally, generic research-methodology courses flourished and became a mandatory mechanism for bridging the current practice culture with the research world. More specific methodology courses were later introduced to cater for rationalist and interpretivist research communities separately. Staff within the visual arts disciplines sourced specific visual arts methodology experts for guidance. Visual arts methodology experts were from fine arts-related fields, however, which made it more difficult for industry-related design and photography fields to relate to this methodology. I would argue that this research-enhancement strategy risked an epistemic drift, away from the previous industry focus, in its pursuit of "world class applied research" (du Pré, 2009, p. 17), and closer to a more traditional university research culture. Similar academic drift concerns were noted by Pratt (1997, pp. 24,35,105) when epistemological borders between newly established institutions and older established institutions eroded.

The epistemic drift moved the industry practice teaching orientation towards a more theoretical orientation (Ferguson, 1999; Pratt, 1997). The new university status created an institutional expectation to offer post-graduate (PG) qualifications of up to doctorate level. Multiple reorganisation processes occurred concurrently. A new research-friendly orientation was mainly justified as preparing students for the more active PG research activity that was lacking in the Technikon institutions (Winberg, 2012). The curriculum focus was now split between preparing a candidate for industry and preparing a candidate for PG research. During this academic dispensational change, there were a handful of creative master-practitioners that held a master's or doctoral qualification in South Africa (Waghid, 2012). Most of these PG qualified practitioners resided in academic institutions and not in industry. Williams relates a similar dilemma in the United States (US) when he refers to the prevalent and "historical problem of securing instructors in theory as well as in mastery of their craft" (1965, p. 357).

Similar organisational change problems on the African continent (Amegashie-Viglo, 2014; Dwomoh & Luguterah, 2020) have also been linked to educational colonialism in Africa and elsewhere. According to Grubb (1985, p. 528), some countries that were affected by the colonial period of the time promoted vocational education as an "antidote to the elitist, academic education (...) and as a way of developing new values". Grubb notes a remarkable similarity between "nationalistic" vocational "justifications" and the need of "advanced" countries "to develop more relevant education" (Grubb, 1985, p. 528.). Relevance in the South African university context seemed to move away from vocational to a more research-friendly context. Burgin (1982, p. 3) makes a clear distinction between theoretical approaches of the pragmatic (vocational) educational orientation and the more heuristic cultural (liberal) educational orientation of photography as a genre. He emphasises this difference as "two quite different pedagogic practices" (Burgin, 1982, p. 3).

A UK perspective on the "face of photography education", according to Blight (2013), changed "in a quite clear sense" when polytechnics became universities, which "led to the disappearance of old models of vocational training for photographers" (Blight, 2013). Paradoxically, a former UK education

minister argued for the reverse of the then twenty-five-year-old decision that had granted university status to polytechnics, citing the loss of vocational focus as reason (The Guardian, 2017). This radical statement can be seen as a reflection of an awareness that vocational values translate well into employability after university (Blight, 2013).

It is clear from the preceding discussion that the institutional change from a vocational to a more research and academic (liberal) orientation was far reaching and unexpected. Williams reflects on this out-of-balance consequence as "the accidental and confused formulation of our institutions", which regarded "education of the mind" as more important than "education of (...) the mastery of skills necessary to perform the workday obligations of life" (1965, p. 335). He asserts that "liberal education does not necessarily liberate anybody", mainly because the proponents of liberal education believe that the subjects making up "the curriculum are intrinsically valuable" but should rather "reference [the] spirit in which (academic disciplines) are taught" (p. 355). While promoting the negated vocational education notion, Williams's well-articulated macro argument provides a sober view about educational contexts in general and concludes that "liberal and vocational disciplines need one another" (p. 359).

The notions of HE and university were not always synonymous. The "town and gown" separation between the university and the everyday occupational reality started fading after the establishment of Victorian civic universities, which were funded by industry (Burnes, et al., 2014, p. 909). During the mid-twentieth century, colleges and polytechnics were incorporated into the HE category, which blended the concept of educational level with the idea of the university institution (Pratt, 1997). Additionally, adapting the management approach in universities from a historically "collective process dominated by academic staff" (Burnes, et al., 2014, p. 909) to the current mimicking of the private sector resulted in students becoming customers, which created an academic ethos that shifted towards inter-institutional competition for resources (p. 911). This closer association with an industry ethos is characterised by Grubb (1985, p. 526) as "the power of vocationalism", which also resulted in academic specialities becoming occupational areas.

However, the reality of a photography course in the historical Technikons, and now in a UoT, is vocationally and occupationally focussed. Technikon staff, like polytechnic staff in other countries, were qualified as practitioners and employed as practitioners with "limited, if any, research skills" (Ferguson, 1999, p. 8). Upgrading their academic qualifications became an institutional prerogative. Scott refers to staff in polytechnic institutions who had little or no inclination for academic pursuit (1984, p. 13), which resulted in fear, resistance or stress (Ferguson, 1999). Additionally, staff in the creative arts within these institutions perceived their duty as not just intellectual but also acutely focussed in "aesthetics and (…) moral terms", something that was discouraged by academicism at universities (Ferguson, 1999, p. 13).

Much of the international and local debate centres on the expansion of HE and the amalgamation of liberal and more vocational institutions that has resulted in "the rise of academicism" in contrast to the vocational and industry-related approaches. There also seems to be a realisation that the liberal and vocational binary might create a positive state of heterodoxy. This "cross[ing] of the binary chasm" is expressed as a "general agreement that universities are about the life of the mind" (Scott, 1984, p. 12). Notably here, and in relation to the debate about practice knowledge, is the negation of practice knowledge in the institutional change discussion.

Writing on the changes in the HE sector during the 80s and 90s suggests that traditional university institutions were perceived as superior to vocation-oriented institutions (Ferguson, 1999; Pratt, 1997). The muted response to the possible erosion of the value of vocalisation is notable in these discussions. There is also an indication that the understated realisation of the possible loss of the initial and strategic reason for existence seems to be overpowered by the desire for degree worthiness and university status. A catalyst towards the notion of achieving university status was the movement of the university environment towards replicating an industry management style. The business model introduced terms such as "strategic plans", "target setting", "benchmarking", "academic audits", "quality assurance", "annual performance review" and "performance indicators", which had not been common to the university environment in the past (Shore, 2010, p. 23).

The agendas of HE institutions have continuously changed over time. Collini (2017) notes that university education in the middle of the eighteenth century invoked "respect for due rank". In the nineteenth century, the university aimed at "building character". In the mid-twentieth century, universities promoted "a decent standard of life", and, during the 1970s and 1980s, the "official discourse" of universities became "increasingly colonised by economic idiom". Since the 1990s, the prospect of "delivery of excellence" has grown into a commercial aim, structure and policy that conflict with what academics consider a university should be (Collini, 2017).

At the VUT we are often reminded that we are preparing people for the real world. My real-world perspective in photography is shaped by a three-decade-long involvement in personal photography practice and in teaching and guiding prospective practitioners towards a professional career in photography. Learning in this reality is then informed from a photography practice reality and a teaching of photography practice reality. Learning in these two practice realities happens in real-time. Adjustments in both realities take place in real-time. Photography practice pedagogy, in my reality, is then not an absolute theory, but rather a lived reality.

Collini (2012) refers to an educationally detached "real world concept" as "the brainchild of cloistered businessmen, living in their ivory towers and out of touch with the things that matter to ordinary people". Through this research, I aim to clarify a real-world understanding of photography practice pedagogy through a dialogue between related theory and photography practice.

The resulting dilemma has manifested in a cascading manner. Firstly, a university institution that is regarded as a knowledge depository, a conveyer of knowledge to the new generation and able to contribute to the overall knowledge pool (Burnes, et al., 2014, pp. 905-906) requires the scholarly capacity to do so. The newly established UoTs in South Africa responded by revising generic (institutional) academic post descriptions, which required the alignment of minimum academic qualification requirements with those of traditional academic universities. The absence of related master's degrees in industry eliminated professional practitioner candidates from being considered for

academic vacancies and opened the door to candidates with a master's degree but no industry experience. The research of Dwomoh and Luguterah (2020) on the competencies of staff in the newly formed UoTs in Ghana reports similar findings.

Ferguson (1999, pp. 1-13) conducted research on the development of a research culture in a polytechnic in New Zealand and found staff in a similar predicament to that mentioned above. With the introduction of degree courses, staff were officially informed that they could not continue to teach a course they had been teaching for several years, unless they upgraded their qualifications. Some despondent staff members resigned, while the institutions established comprehensive research-related infrastructure and policies to guide them through this transition phase and beyond.

Kyvic and Skodvin (2003) provide an interesting Norwegian perspective on research in their equivalent college (vocational) institutions. Staff in these institutions engaged in research long before they had the HE status that would require them to do so. Sixty per cent of the staff working at these colleges were already engaged in research before the Norwegian government granted research status to these colleges. This paradox seems to suggest that the impetus for knowledge production was an inherent quality of staff at these institutions as opposed to mandatory external pressure. Such a scenario, in relation to this research, and in a South African context, might seem to diminish the argument of an epistemic drift that was advanced earlier. However, the Norwegian example illustrates the value of personal knowledge pursuit as a natural outflow of personal interest. I believe a personal curiosity can sustain an ongoing academic involvement more readily than forced engagement for the sake of qualifications. This refreshing example contrasts with other scenarios at institutions in Europe, the UK and Africa, where academic output is prompted from the outside.

From the Norwegian example it is clear, to me, that an academic management approach can influence the social wellbeing of the academy. A hurried strategy to import research degrees might then not be necessary. I will posit that an aggressive demand for research qualifications could result in a skewed and

possibly immature epistemic environment that is not sensitive to the needs and requirements of a practice-oriented academic environment.

Furthermore, the theoretical orientation of the PG environment, the lack of creative practitioner PG study leaders (Lyons, 2006) and a lack of governmental recognition for creative practice as research output prompted many staff members at UoTs to pursue an academic PG qualification instead of a practice-based qualification. Practitioners were mandated to engage in demanding PG theoretical qualifications for which they had little undergraduate preparation. The theoretical demand resulted in less critical development time spent on their creative practice. I would posit that the logical consequence of this academic "culture shift" was a pedagogical shift away from the essence of creative professional practice development. This PG scenario, I suggest, is a result of a domino effect that cascaded down from a government decision, which affected the existing institutional culture and the nature of practice-related courses, such as photography.

The national institutional restructuring phase was followed by institutional "recurriculation" stages. National Diplomas became "institutional" Diplomas, with the opportunity to change the course subject content by up to fifty per cent. New government regulations now allowed UoT institutions to apply for a degree nomenclature. The introduction of a university-privileged degree nomenclature option promoted an adjustment to the theoretical approach within the existing industry-relevant qualifications. In other words, the recurriculation process struggled to maintain the existing industry- and practice-centred approach. I would argue that this shift had an impact on the industry relevance of practice-based qualifications and on the future economic productivity of graduates from these courses.

1.2   Curriculum orientation in a vocational academic setting

Ensor (2004) describes the compulsory course subject scenario, similar to the described diploma in photography at VUT, as a "disciplinary discourse" (p. 342). She further indicates that this scenario ensures "cognitive coherence" that favours "skilled graduates for employment in the workplace" (p.

240). The applied nature of the qualifications at Technikons meant that they were also known as programmes and not degrees (du Pré, 2010, p. 6).

The closed curriculum allows for discipline-directed epistemic focus in the course and provides the opportunity for linked knowledges that speak to one another. Photographic practice, in preparation for a professional photography career, is at the centre of the photography course at VUT. Professional practice emerges as a key theme in the theoretical analysis of the data (see Chapter 5).

A different strategy would be what Ensor refers to as the "credit accumulation and transfer" or "credit exchange discourse" (Ensor, 2004, p. 343). The credit exchange discourse, regarded as more flexible, allows the student to choose their required credits from available modules towards a qualification. The credit exchange discourse is suited for courses that aim to provide a general education, characteristic of the traditional university environment.

The "disciplinary discourse" provides an environment that can promote epistemically related and focused dialogue within the course. Ensor also refers to an "introjective orientation" that relies on a "vertical pedagogic relation" between the student and staff member (Ensor, 2004, p. 343). Although I agree with this idea, theoretically, I will suggest that the "inward focus" and the "outwards upon the world" focus should not be seen as pedagogic oppositions but rather as constricted educational interpretations.

The apprentice approach to teaching is still generally regarded as an appropriate approach to teaching photography practice (Bishop & Starkey, 2006; Francisco, 2007). Related to this approach, and based on my view, I will posit that aspirant professional photographers do not choose to go to the academy to study photography. They choose to study photography, which might be offered as an option at the academy. In this sense, I want to place the focus of the learning activity on photography, and not on the university. The profession of photography is unregulated and can be learned through workshops or by assisting a professional photographer or can be self-taught. I believe the original intention in establishing

a photography course in the academy was to provide a space where focussed and holistic photography learning could take place. In this learning space, the learner would be cocooned from other life realities to absorb as much photography as possible in the shortest possible time.

The result of this form of academic engagement is certification. Certification is noted as an achievement of the "learning objectives" (ISCED, 2015), which, pedagogically, should show coherence with the undergraduate time allocation, even if the allocated time for the discipline could be too short or too long. In South Africa there are pre-determined generic Exit Level Outcome (ELO) guidelines for qualification levels. Academics use these guidelines, as well as input from an industry advisory panel, to design a curriculum and a teaching approach for the qualification. In essence, and in the context of such a structured teaching environment, the qualification is then packaged in a container that is designed by the academy with limited input from the industry. By default, the educational strategy now lies outside of the practice environment of the discipline. The initial intention of an industry-reality focus has shifted to an educational-reality focus. Pedagogy, as the methods and approaches to teaching and learning, is a construct of education reality that might not necessarily align with the practice reality of professional photography practice.

1.3   Craftsmanship[2] as an idea

The UNESCO Framework for Cultural Statistics states that an artefact does not have meaning "without a values system and production system that gives it value/meaning" (UNESCO, 2009, p. 29). Bolton (2010, p. xiv) states that "values are manifest in practice" and that "[p]rofessional integrity can be defined as working according to consonant values coherently integrated within daily action." For this research, I would suggest that *craftsmanship values* be considered the inherent quality of the epistemological orientation for a pedagogy of photography practice.

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[2] This research regards 'craftsman' as a neutral term that refers to either gender and is merely a descriptive term.

I would posit that the *epistemic character of the educational context motivates a pedagogic orientation*. For me, this character could lie within a deeper understanding of the craftsmanship idea, which I would suggest as involving care for photography practice and practitioner learning, which constitutes a pedagogy for photography practice. Heidegger (1976) refers to this notion as *interesse*, "to be among and in the midst of things, or to be at the cent[re] of a thing and to stay with it" (p. 5). For Sennett (2008, p. 20), the craftsman embodies "the special human condition of being engaged". Engagement is generally a problematic concept for students today. The lack of engagement is problematic on many levels. The photography profession is changing from secure employment at a large corporation to vulnerable self-employment where income is self-generated. Photography practice is not a head knowledge attained by rote learning but a skill that develops with appropriate engagement to the level of problem-solving instead of "getting things to work" (Sennett, 2008, p. 20).

A craftsman engages with hand-head interactions (Sennett, 2008, pp. 19-27), which is an "everyday practice" for them (Lave, 1996, p. 8). The notion of this "everyday practice" is generally regarded as "not knowledge", thereby "ignor[ing] the lived world" (pp. 7-8). This notion of learning is also explored as the idea of *craftwork* (Engeström, 1996; Fuhrer, 1996; Hutchins, 1996; Keller & Keller, 1996; Suchman & Trigg, 1996). Sennett (2008, p. 21) is clear about the emotional incentives that the craftsman achieves through a "tangible reality" and the resulting pride of this achievement, which he describes as "a mirror" to the past and present. This form of mirroring could align with the notion of reflexivity, which is proposed as a suitable approach to knowledge creation in this research. A community of like-minded practitioners provided the ideal environment for reflection.

Before the industrial revolution, a community of practice was established through craftsman guilds that became a contextual source of strength for the craftsman practitioner. These communities of skilled practitioners were replaced by professional associations, which became weaker as bureaucracy and 'impersonal markets' increased (Sennett, 2008, p. 246).

Sennett (2008, p. 22) refers to skill acquisition as "obedience". Being reflexive as a craftsman is a reflective obedience between oneself, other practitioners and craftsmen that lays the foundations of mastery. Sennett refers to this form of mutual respect as the glue and learning as "sharp mutual exchanges" and "shared commitment" (Sennett, 2008, p. 31). Sennett notes that this form of shared practice value historically did not focus on the worker, in the way that Soviet collectivism did, but instead focussed on the work (Sennett, 2008, p. 31).

The reference to skill in the word "craftsmanship" describes the craftsman's practice attitude. Its context in this thesis is as a reflective reference to underlying values that embody the attitudes and approaches to making at the time. These fundamental value principles of craftsmanship encapsulate the value system that is proposed for photography practice in this research. In its historical reality and practice, craftsmanship is simulated by a handful of crafts' practitioners worldwide. A replication of craftsmanship in its historical existence is not contemplated as a viable suggestion through this study.

Sennett (2008, pp. 37-39) clarifies that skill is a "trained practice" as opposed to a "sudden inspiration". The importance of skill in a profession such as photography is self-evident. There seems to be a common perception that students in creative education environments are there because they are exceptionally talented. The scope of this research will not question such perceptions but will focus on factors that can influence an approach to creative practice education that favours every engaged participant. Skills training is often associated with non-academic vocational institutions. The fact that photography education also resides in HE does not change the nature of the discipline. Creative educators in HE environments are often subjected to unnecessary pressure from management because of the practice nature of the courses they teach. Management wants to ensure that programmes are degree worthy and must contain a proposed amount of theoretical content.

In the context of practice, this research will explore the notion of knowledge in its origins to establish the value of practice knowledge in terms of theory. I believe that the idea of skill is not necessarily linked only to practice or to theory knowledge. This research is linked to a performative practice such as

photography in the context of this research. Skill, for Sennett (2008, p. 37), contrasts with sudden inspiration.

1.4 Becoming a craftsman

Craftsmanship typically denotes a high level of skill and expertise in a specific field. To reach this level of skill and expertise requires a rigorous process of learning that could last for years.

Within the medieval guild, the value of the craftsman profession was hierarchical, consisting of the apprentice, the journeyman and the master craftsman (Sennett, 2008). The apprentice, usually a young boy, would join the craftsman's family as one of his children (Sennett, 2008). The journeymen were hired helpers that worked for a daily wage.

The hierarchical steps towards master craftsman status are conceptually similar to educational processes today. Rozenkranz (1872) refers to "apprenticeship", "journeymanship" and "*mastership"* (pp. 52-53), with –ship, as referred to earlier, denoting skill and rank, what Rozenkranz refers to as "didactic process" (1872.). At their own cost, the apprentice spent up to seven years learning under the master on an artefact (*chef d'oeuvre*) that the master judged. If successful, he would progress as a journeyman for another five to ten years, now moving from opportunity to opportunity, to present another artefact presentation (*chef d'oeuvre élevé*) to "the corporate body of master craftsman" (Sennett, 2008, pp. 58-59).

Comparisons to a qualification in photography, as presented in my institution, are worth making. The concept of time and how long it takes to complete a series of university qualifications as compared to the craftsman process is particularly interesting. An undergraduate degree or diploma would typically take three years, an honours degree one year, and a master's degree between two and three years. Whereas the master's qualification at a university can take between six and seven years, the master craftsman route in medieval times would take between ten and seventeen years.

"Basic conditions for apprenticeship" were noted in the "Statute of Artificers of 1563…, [which] was repealed in 1814" (Lane, 1996, p. 3). Becoming a craftsman entailed "12-hour working days" (p. 5) compared to a forty-hour week for students studying photography. Twenty of these hours would be devoted to the applied practice of photography. There would be thirty-four academic weeks in the year, amounting to 680 hours of applied photography per academic year. The traditional craftsman would spend approximately 3 000 hours per year on their trade. Sennett (2008) mentions the accepted ten-thousand-hour rule for mastery of a skill (p. 20). According to this standard, the medieval apprentice would reach mastery before the third year of his seven-year apprentice training, leaving a possible fourteen years to satisfy the guild standard of becoming a master craftsman.

Craftsman were not trained in institutions. They received their training under the supervision of a senior in their field of expertise.

The focus on rigour in workmanship declined through inevitable political and societal change that reduced the "term of service" (Lane, 1996, p. 3), introducing reading, writing and arithmetic (p. 5), and eventually shifting the opportunities for apprenticeship to "boys from prosperous backgrounds" (p. 8). Wallis (2007) further notes that as the guilds weakened in the later eighteenth century, the term of service "declined from an average of six or seven years to four years across a large range of trades" (p. 28).

1.5   Craftsmanship and the decline in mastery

The *measure of mastery* was an essential and final step towards accomplishing master-craftsmanship status (Bryce, 2005; German, 2011; Ingold, 2013; Raelin, 2007; Sennett, 2008; Shelby, 1972; Vetoshkina, 2013). In the historical guild's structure, the measure of mastery was performed by masters of a similar craft, who had endured a similar process of accumulating this mastery. As much as this form of validation appeared to be hierarchical in structure, its purpose was to apply expert insight to maintain established standards. I would suggest that the craftsman in general aspires to an inner discernment capability regarding his ability and shortcomings. I would propose that he utilises external opinions to

speak to inner standards, more than accepting the artefact result that may or may not be the result of a personal standard.

For David Gauntlett (2011), fine art is "more dependent on hierarchies and elites" to "validate the work", whereas craft is about a secure inner process of creativity "no matter what anyone says" (p. 25). This statement may highlight the notion of authority and who the authority should be. From the literature, it is clear that *master craftsmen became their own authorities*. The external validation authority is then "in authority", whereas the "craftsman to be" is in the process of becoming "an authority" (Winch & Gingell, 1999, p. 18). It seems that the master craftsman authority came under threat when mass production became the production norm as a consequence of the Industrial Revolution.

1.6   Craftsmanship learning as an enveloping experience

I would suggest that the notion of craftsmanship is not closed, elitist and dogmatic. Instead, I propose that the craftsmanship distinction should be receptive to any influence that could enhance the outcome. This means that the craftsmanship milieu for teaching and learning photography practice should be receptive to influencers, from all directions, that can inspire self-fulfilment as a practitioner.

Reception and interpretation of the structured array of information transmitted require "construction of meaning" (Littlejohn & Foss, 2004, p. 44) by the mind so that we can intelligibly comprehend and connect with what was observed. Then, along the lines of Humphrey's (1993, p. 17) explanation, one must be present to have a "representation by a mind" of the phenomena. *Researching value perceptions of participants would then require me to be there, not just objectively observing but actively engaging with their thinking for clarity in terms of answering the research question.*

Meaning, in this research, is not purely objectivist, discovering the "meaningful reality" (Littlejohn & Foss, 2004, p. 8), or subjectivist, involving "meanings (…) imposed on reality" (p. 43). Meaning is then not "created" (p. 44) but "constructed" (p. 9) from an array of what I "have to work with" (p. 44). The array in this research consists of participants' opinions that I will interpret as the researcher in dialogue

with found literature and experience as a teacher in this field. Then, the subjective and objective actions merge in the process of constructionism (p. 44). Constructionism, according to Crotty (2012, p. 43), "claims (…) that meanings are constructed by human beings as they engage with the world they are interpreting".

Practice in this research denotes a respectful, considered activity that creates a foundation for learning. Crotty (2012) describes this construction activity as the convergence of subjectivity and objectivity through the "concept of intentionality" (p. 44). In this instance, intentionality does not denote "purpose or deliberation" (p. 44). Instead, it refers to "moving towards" or "directing oneself to", which is derived from the root stem in Latin, "*tendere*, which means to tend" (Littlejohn & Foss, 2004, p. 44). Crotty (2012, p. 44) further clarifies that:

> "[w]en [sic] the mind becomes conscious of something when it "knows" something, it reaches out to, and into, that object. (…) intentionality posits a quite intimate and very active relationship between the conscious subject and the object of the subject's consciousness. Consciousness is directed towards the object; the object is shaped by consciousness."

> Furthermore, he states that "[w]hat intentionality brings to the fore is interaction between subject and object", and that "[it] is in and out of this interplay that meaning is born" (Littlejohn & Foss, 2004, p. 45) from a "consciousness of objects" (Wheeler, 2013, p. 7).

Intentionality, for Cresswell (1996, p. 7), describes the "aboutness" "that refers to a relation between consciousness and the world and a process that is 'bodily and habitual'".

In the context of creative practice education, Bourdieu's world of habitus refers to the socialised body as cultured beings that Crotty describes as "the source" of "human thought and behaviour" (Littlejohn & Foss, 2004, p. 53).Crotty states that "the very existence of social phenomena stems from human action" (p. 55) and posits that culture "has to do with functioning", and without it "we would not function" (p. 53).

I see the craftsmanship-world as a "world [not] always already there" (Littlejohn & Foss, 2004, p. 10), but as constructed by a society of like-minded makers. As described by Crotty, the notion of

intentionality is essential in this context. *I interpret intentionality, in this research, as consciousness, drawing on one another's making desire, thereby forming a community of consciousness, drawing on one another's knowing.* Sennett (2008) describes the craftsman home as "sacred", a "spiritual home on earth" (p. 56). The inner motivations of early medieval craftsmen were guided by their faith, which, in the context of this research, highlights an inner spiritual likeness and bond between individual craftsmen.

This research aims to find direction indicators towards a dialogic pedagogy that will promote the values of craftsmanship in a programme such as photography. A clarifying context for these indicators was established from related literature. The social context of this research project is that of my particular educational setting, which was elaborated on earlier. However, the actual social context for this research lies in the conversations that I engaged in with participants. Epistemologically, I see the knowledge from this research as being socially constructed using a dialogic strategy.

1.7   What do I want to achieve?

With the changing educational landscape in South Africa came a critical re-evaluation of the Higher Education Landscape (CHE, 2015). A task team proposed to the minister that,

> "[t]here is an interplay of factors other than curriculum structure that affect teaching and learning, in particular, pedagogy and the teaching abilities of academics." (CHE, 2015, p. 7)

The minister responded through the Council of Higher Education, agreeing,

> "that the key challenge facing Higher Education is to improve performance patterns and thus student success through improving teaching and learning." (CHE, 2015, p. 11)

HE institutions responded to this report by acknowledging a,

> "lack of expertise in curriculum development and teaching methodologies among academic staff." (CHE, 2015, p. 7)

The substandard academic performance of students presents a considerable challenge in all HE contexts. This research attempts to contribute to the national education agenda in this regard. However,

I question how the government will know that "improved student success" is, in fact, a result of "improving teaching and learning" (CHE, 2015, p. 7).

1.7.1 Background perspective

The most satisfying experiences of my teaching career were the occasions where I could see the difference my involvement made. I had the privilege of teaching prospective photographers in a photography department for three decades. During this time, South Africa changed from an undemocratic to a democratic political dispensation, and my institution changed from a purely vocational institution to a UoT. The political change introduced a change in educational policy, academic institutional leadership, academic structure, qualification type, student demography and curricula. Photography also underwent profound technological changes during this time. The extent of changes in all these areas was drastic and markedly impacted the teaching of photography in HE.

Before all the changes, the industry-oriented photography course was clearly defined and guided by advisory boards and national curricula. Educational perspectives were rooted in the individual teacher's skills-transfer convictions and strengths. My opinion at the time was that students received a comprehensive industry-oriented set of skills that could secure them an assistant job in the wider photography industry. The above-mentioned changes were fast-paced, unplanned and took place parallel to one another. During this time, institutional staff had to deal with extraordinary challenges that impacted their teaching.

I was introduced to the concept of pedagogy through a PG educational involvement during this time of change. My educational involvement until then had consisted of didactical and curriculum development. My main interest was the improvement of the curriculum to get the students industry ready. Many of the changes required an understanding of the larger educational machinery, which led to the realisation that no one knew much about what we were doing educationally. An introduction to the pedagogic concept revealed the why behind the approaches and methods of my teaching. My methods and

approaches were instinctive, private and not something I could articulate or express. I set out to challenge my perspectives through the views of fellow staff and students and through industry perspectives, building on the foundation of a theoretical understanding of the applicable concepts related to this research.

1.7.2   Aim and objectives

The aim of this research is to gain a better understanding of the photography practice pedagogy in order to suggest a pedagogic approach for photography practice education.

The objectives of the research are as follows:

1. Probe an ontological perspective of photography and its practice (Chapter 2):

    a. Through this ontological view, understand who the photographer is in relation to his or her practice

    b. Relate the technological impact of an analogue medium that has become digital on the understanding of the medium

    c. Probe what knowledge, as photography practice, is taught and how this knowledge is approached as a pedagogical orientation

2. Utilise a reflexive strategy as research methodology to elicit understanding related to the teaching and learning of photography practice in the photography course at VUT, of which I am a member of staff (Chapter 3):

    a. Discuss an appropriate method for collecting data or impressions from research participants

3. Conduct research by gaining the views of the "natives" and actors within the photography department where I teach and in the industry we embody (Shore, 2010, p. 16) (Chapter 4):

    a. Conduct a pilot study to determine the viability of the research approach

    b. Utilise an interpretive research approach by conducting interviews with students, staff and industry professionals

  c. Manage the impressions received through the interviews with appropriate data management software

  d. Identify broad categories into which research impressions fall

4. Analyse the data for discussion and recommendations (Chapter 5):

  a. Identify themes that come into view

  b. Analyse and discuss the themes in relation to emerging responses and literature

5. Suggest a photography practice pedagogy.

The above objectives are guided by the following question to achieve the aim of the research:

 "Which important factors can be identified as influencers of the approaches and methods of photography practice education?"

2 Literature Review

> "... the role and definition of photographic education are of particular concern. What is photographic education today? The question elicits a wave of differing, often contesting answers. While it is generally understood that photography is teachable, the spectrum of pathways by which it is approached - as an art, as a medium or set of techniques, as a field of industry - complicates the pedagogical strategies that lead to a cohesive answer." (Ou, 2013, p. 57)

2.1 Introduction

This study, through the research questions, seeks to locate factors that influence the way photography practice is taught. The teaching of photography practice requires sensitivity towards factors that constitute the notion of photography. The notion of photography seems varied, contextual and open to interpretation, prompting Kember (2008, p. 175) to state, "we still do not know what it is". For Barthes (1981, p. 6) "[p]hotography is unclassifiable... [and] invisible: is not it what we see". Tag (1988) questioned the certainty of an identity for photography generally but thought that the photograph could have such an identity. The separation of the notion of photography and the product may indicate that photography and the photograph belong to two conceptual worlds. Kember (2008, p. 175) refers to the "exteriority" of photography when we consider the "condition of photography" through "debates on new media, science and technology studies". Kember (2008) relates this exterior view of photography to an interior view, or "from the inside", referring to a philosophical discussion that requires an ontological approach.

The understanding of photography and its identity seems further complicated by the continual developments of photography's "modes of production", which Newbury (Editorial Statement, 2009, p. 104) asserts as "changing photography in ways photographic historians and theorists have yet to fully grasp". Newbury (1997) furthermore highlights the negation in the literature of the photographer over the limited content of photography history. The title of this research embodies the notion of the photographer in the context of craftsmanship, or a specific approach to the practitioners' practice. Barthes (1981, pp. 8-9) identifies "three practices" of photography, "to do, to undergo, to look", and makes himself "the measure of photographic knowledge". It is then essential to be mindful that teaching

photography implies teaching the prospective photographer in the teaching and learning context. As a photographer or spectator, the person is advanced as central to the conception of photography, whether by initiation or appreciation.

This literature review chapter develops an ontological understanding of photography as a medium, informing the intended educational objective. When I interrogate what photography is, I do not reach a resolution. However, I aim to probe towards a deeper self-understanding of the question related to the guiding research question. An ontological perspective on photography, in this thesis, is contextually situated within the history of photography, and is mindful of the photographer. The history of photography might consider specific historical events but essentially incorporate past contexts and future possibilities (Williams, 2015, p. 102). The research question asks, "Which important factors can be identified as influences to on the approaches as methods of photography practice education?"

In the research question, the term photography relates to its practice or application. Some ambiguity related to the production of the photograph, as the result of the application, is illustrated by differing terms such as capturing, making, taking, or "receiving" (Berger, 1982, p. 82). I believe that photographers learn a language of practice in the practice of photography, whether formally or informally. The inquiry in this thesis is not whether photographers are taking, making, capturing, or receiving photographs. However, I believe that these action verbs can suggest an ideological stance that the photographer may subscribe to, which can inform an ontological perspective.

For Ansel Adams (1980), a renowned landscape photographer, the technical, scientific, and artful dexterity became a process of making photographs instead of taking them. For some photographers, it seems philosophical mindfulness developed as their practice matured. It is as if the philosophical context of their practice surfaced as their skill level became ingrained. It seems that some photographers contemplate their photographic practice philosophically instead of practising photography philosophically. Conceptual photographers such as Gordin (2013, p. 77) found it best to put the camera down and read critical Russian theorists and cinematographers before pursuing a career

in conceptual fine art photography. The conceptual way a photographer practices their craft could, in the view of Hughes (1996), resemble an ethnographically-oriented discourse on photography practice, which could help shape a perceived identity for the photographer's world. Schön's (1983) views on reflective practice suggest that an inner practitioner dialogue could shape a personal practitioner reality. The two-dimensional surface object (photograph) of this practice reality, for Flusser (2000, p. 8), is regarded as imagination. For Flusser, this imagination is a "specific ability to abstract surfaces (photographs) out of space and time and (...) project them back into space and time".

A photographers' practice and how they, or others, perceive the act of photography (taking, making, capturing, receiving, or imagining) could encourage an ontological orientation. Furthermore, I will posit that the engaged practice acts direct the photographer's ontological understanding. The two branches of ontology, namely ontological materialism, and ontological idealism may be relevant to the domain of photography. I would posit that the two branches support an ontological photography view, either through one view or in a varied relationship of one to the other. I suggest that an ontological view through materialism towards idealism will reflect a craftsman practitioner and commercial-oriented ontology. I suggest that an art-related ontological view could be through idealism towards the materialist practice of executing the idea. Kember (2008, pp. 176-178) suggests an ontology "of becoming" instead of "Being" because becoming can be known by the concepts of memory and intuition instead of an intellectual understanding that only relies on sight.

The practice of photography has relied on scientific, physics and technological principles that demanded great care to ensure consistent and repeatable outcomes. The craft-like practice became a great skill and had a "peculiar and undeniable power to touch" the viewer (Strand, 1990, p. 105), maybe in the imaginative dimension that Flusser (2000) hypothesised. I will posit that this touch is a profound connection that the photographer through the photograph makes with the viewer. Plato located this notion of skill back to the word "making", *"poiein",* which was the "parent word for *poetry*", and referred to craftsmen as poets (Sennett, 2008, pp. 23-24). Flusser (2000, p. 8) suggests that the understanding of the deeper meaning of photographs is realised through a process of "scanning" ambiguous symbols

in the two-dimensional representation of space and time. The ambiguous nature and form of poetry that is suggested above could have provided the impetus for a structured process of photography inquiry in the form of education.

2.2   Photography education

Photographic education started under the direct leadership of the inventors and practitioners of the medium (Lyons, 2006; Stuart, 2008) and not with institutions of learning. The personal contact and relationship that the inventors had with the genesis of the medium seemed to promote a how-to approach, drawing keen followers into the essence of the new craft. The opportunity to organise, systemise and institutionalise this new craft education was soon realised. In 1839, forty-five days after Louis Mandé Daguerre published his "Daguerreotype" process (the first usable photographic process), the Stuyvesant Institute of New York City offered formal instruction in "picture making" (Stuart, 2008, p. 103).

The "first school of photography" was a course on taking and developing Daguerreotypes by Samuel F. B. Morse on his return from France in 1839 (Lyons 2006, p. 396). The American Photographic Institute was established in 1860 (Lyons, 2006). Other countries followed suit, offering courses in photography, such as the University of London presenting a course in photographic chemistry in 1865 (Lyons, 2006). By 1898 The Vienna School instituted a school of photography with two departments, Department A and Department B. Department A taught the practice of photography, while Department B conducted "original research, (...) testing (...) new methods in photography and testing (...) apparatus and materials in support of individuals, and business" (Lyons, 2006, pp. 397-398). The exponential desire for photography as professional practice is illustrated by Melin (1989, p. 54), reporting that by the year 1891, in Paris alone, there were "more than a thousand studios" and "half a million" photographers.

During the early nineteen hundreds in the United States, photography as a formal course was well established and taught at various HE institutions, including "Massachusetts Institute of Technology; the University of California; Cornell University; Ohio State University, Columbus; the University of Rochester;

the Brooklyn Institute; and the University of Chicago, as well as the U.S. Military Academy at West Point."
(Lyons, 2006, p. 400).

Educational offerings have since expanded exponentially again. With this disconnected and independent expansion came differing educational approaches to teaching photography. One of the main distinctions has been between a vocational and liberal education. Photography education is situated in both approaches but also with a noticeable move towards a more liberal curriculum within vocational programmes. Traditionally liberal curriculum approaches became especially prevalent when vocational institutions offered degrees instead of vocationally oriented diplomas. A stigma attached to vocational education seems to have motivated this shift. This historic stigma is highlighted in the writing of Snider (1973, p. 60) who refers to Ashby's remark that the "real purpose" of non-vocation education is to "civilise people" and should "not attract people who only want to be certified, [and] not civilised".

Rubenstein (2009, p. 136) suggests that the purpose of photography education is not essential for the use of photography in fields such as scientific, medical, astronomy, law enforcement, microscopic, historical, and other peripheral areas. He asserts that these photography uses will be ongoing even if photography courses are no longer available. For Rubenstein (2009, p. 136), photography education aims "to educate in the creative uses of the medium, to provide a critical framework for the interpretation of creative images and to further visual literacy". The vocational bearing of my research is due to the specific educational setting in which this investigation took place. However, this vocational bias aligns with Rubensteins' view of the purpose of photographic education in that the creative uses that are taught are directed towards professional industry-oriented practice. It does seem that there has been a shift away from technicist vocational education in photography towards a more balanced technical, aesthetic mode over the past two decades. I suggest this educational shift, which moved from vocational education towards liberal education, produced a hybrid educational context which lacked a clear focus. The educational shift has never been critically interrogated to provide a clear educational direction and could have contributed to today's ambiguity surrounding the education of photography practice.

Most photography courses in South Africa promote self-expression towards a commercial goal. As the core focus of these courses, photography practice is then supported by theoretical subjects that shape the identity and focus of the photography course—combining coherent subjects within a course positions the course on the linear scale of extremes between the conceptual and the productive. Throughout the range of this scale, I believe, lies a practitioner influence in the form of the master. I believe the reality of a master will never be eradicated in a practise-based teaching reality. However, what or who the master should be something that this research pursues through the research question that searches for educational influencers. Flusser (2000, p. 59) ascribes mastering "the rules of spelling and grammar" as attributes of the writer. Similarly, the professional photographer should understand the foundational rules of the photographic medium. However, I believe the rules that support mastery in photography are not so apparent in a medium where light inscription became questionable as the inscriber of reality.

Ambivalence of an exact approach to the teaching of photography is then understandable. Ou' s (2013, p.57) writing on photography education provides an interesting lack of resolution that can affect an understanding of photography pedagogy. He mentions "ongoing arguments" amongst photography educators that include,

> "the validity of analogue processes, the necessity of the printed image, commercialism versus artistic expression, photography's relation to other media, documentation versus invention, [and] the question of upholding a medium-specific curriculum".

In addition to these views, Ou points to the very nature of photography that is not just embedded in genres of photography application such as fine art, fashion, or documentary but in the technological nature of the medium that connects it with other fields. This view of photography describes the nature of the mechanics and directs attention to why people are drawn to it. The mechanics provide access to the medium through technology, while what we see and the desire to preserve, or capture, may be a response to the need "to replicate our perceptual experiences (...) and to share [our] seeing" (Ou, 2013, p. 58). In this sense, Pierre Bourdieu (1990, p.70) referred to "a natural need" in us that photography responds to, in the form of a "cultural practice".

It could be the desire to learn how to communicate and express in this visual discipline. Flusser's (2000, p. 9) thinking on photography as "technical images" extends the natural need as "mediations between the world and human beings", which provide people with a way to understand the world.

Bourdieu (1990) relates the freedom of photography as a cultural practice to its non-explicit teaching authority, which is unlike the agenda of museums and concerts. In a pedagogic context, I would suggest that this freedom to respond to a personal "natural need", could be confronted by the "unnatural" systemised educational setting. Miroslav and Lenka (2014, p.414) refer to the "schematisation of teaching and, normalisation of [educational] work" that leads to the "policy of the state" within an organisation, which, according to Clark (1972, p.179), can become "utopian, fanatical, or sectarian". Clark (1972, p.178) refers to this as an "organisational saga", where saga denotes a historical build-up of beliefs that instils "pride" and "identity" in the organisation. I would suggest that the identity of educational organisations that were historically shaped by systematic structuring of educational approaches can resist pedagogic alternatives that do not align with the unwritten institutional philosophy. Shulman (2004, p.436) highlights this problem by suggesting "that the policy environment introduces a tension between teacher as policy implementor and teacher as local problem solver" . The supposed and ideal process of discovering photography, from the foundations of a natural need, within the academy, is then directed by prescribed curricula and pedagogy. Educational outcomes within prescribed curricula and pedagogy could then be misinterpreted as personal outcomes, or self-discoveries, instead of outcomes resulting from a carefully planned academy agenda.

The effects of such a structured academic approach were evident in the termination of the French art Salon in 1920, which was first instituted by the Royal Academy of painting and sculpture in 1667 (Delacour & Leca, 2011). Art practitioners of the time revolted against the effects of academic conservatism that excluded works of art that did not conform to the "academic taste" of the salon. The systematisation caused by academic exclusivity was a manifestation of the institution's "academic taste" (Delacour & Leca, 2011, p. 445) at the time. The salon was the only podium for artistic standards and

public "art education" at the time, and yet refused participation, and thereby the educational influence, of artists such as Monet, Cézanne, Sisley and Renoir (Delacour & Leca, 2011, pp. 445-447).

Artworks produced by these artists were derogatively labelled "impressions" (Delacour & Leca, 2011, p. 447) of art because the practitioners stepped outside the parameters of the academy thinking of the time. Charles Baudelaire, an art critic of the time, believed that "[a]rt prevails when the [artist] crosses the sheer limits of aesthetics and assert the passionate inspiration of his own creative world" (Taminiaux, 2009, p. 39). Baudelaire furthermore pointed out the effects of inhibiting the emergence of this creative world, describing it as a:

> "virtuoso of rhetorical conventions, of classical rhymes and tones, but the formal perfection of his work stifles in many ways the raw, expression of his own feelings and emotions".

In the search for an understanding of a photography practice pedagogy and within the broader ontological understanding of photography, I question institutional deafness to a focussed pedagogic debate that will promote an appropriate photography practice reality. The reality of photography practice education should not be equated with the general HE reality and confines. I believe HE institutions should accommodate disciplinary self-determination, especially if the discipline, such as photography practice, is subject to the technological and visual advances that dictate the profession. The lack of such self-determinism, I believe, will result in broad institutional views that can stifle the raw expressions and emotions that should drive the very core of a creatively-based course.

However, the space for constructive debate only seems realistic if a thorough understanding of current and past perspectives provides a view to the future. Past perspectives require a historical insight into the origins of related conceptions that will suppress a form of "social amnesia" (Giroux, 1997, p. 6). The nature of an appropriate teaching and learning strategy should then match the nature of the subject field in question.

The learning of photography craft, as a technical and creative act, in whatever educational context, seems conceptually embedded in its early description's etymology. Batchen (1994) identified a

"disruption [which] unravel[ed] all conventions" that provided an "anchor" to the understanding of what photography is (p. 5). He labels this disruption "photogrammatology".

The commonly quoted word of photography that is derived from the Greek words *photos* and *graphos*, denote "drawing with light" (Osterman, 2008), or "light writing" (Rosenblum, 1997, p. 27), which Talbot called Skiagraphy or "words of light" (Derrida, 2010, p. 1). Batchen (1994, p. 5) highlights the identity of photography as an interplay between "light" from nature and "writing" from culture and therefore "sidesteps" the emphasis of the one meaning over the other. Therefore, writing as a cultural action is instrumentally facilitated using the external lumen-ingredient. Batchen (1994) refers to the identity of photography when he deconstructs the etymology of the word photography.

The photo-graphic process, which Derrida describe as "conceptual oppositions" (Batchen, 1994, p. 5), could become a delicate act of objective science by subjective preference that results in a visual artefact, the photograph.

2.3   What photography is

> "...photography does not create eternity, as art does, it embalms time, rescuing it simply from
> its proper corruption" (Bazin & Gray, 1960, p. 8)

Historically, other than spoken and sign communication, graphic communication fixated the observed world and personal encounters for future generations (von Petzinger, 2015). Photography made it possible to inscribe light photons reflecting from the physical world more objectively. Mitchel (1992, p. 23) refers to the inscription process as "fossile[s]ed light" with an "aura of superior evidential efficacy".

Bazin (1967, p.8) extends the photo (light) graphic (writing) ontological reference "to the order of natural creation" because of its objective rendering power. The "truthful representation" of the photography medium suit not only the positivist scientific view of the nineteenth century but also the novelist Gustave Flaubert who believed that an artist should be "omnipotent and invisible" (Rosenblum, 1997, p. 96). Furthermore, the exclusion of human agency was evident in the naming of Nicéphore

Niepce's 1827 historical and first-ever photograph, which he termed a heliograph (Newhall, 1989; Rosenblum, 1997) or sun-writing. In the more scientific literature on photography, the photograph will be referred to as "taken by the agency of light travelling from the subject to the camera" (Jacobson et al., 1988, p. 9). Like the camera lens, photography sits between two ontological realities, needing both realities, science, and humanities, to produce a photography reality.

According to Tag (1988, p. 118), the understanding of photography is conceptually situated between its "social formation". Tag elaborates on the nature of photography by stating that:

> "Photography as such has no identity. Its status as a technology varies with the power relations which invest it. Its nature as a practice depends on the institutions and agents which define it and set it to work. Its function as a mode of cultural production is tied to definite conditions of existence and its products are legible and meaningful only within the particular currencies they have. Its history has no unity".

The photography as verification is then linked to the demand of institutions that it serves (Parayil, 2019).

The obsession to fixate on the world has been realised in many ways. It was first achieved in tracing reality based on the linear perspective principles conceived by Leon Battista Alberti and his Florentine colleagues (Newhall, 1989, p. 9), utilising mechanisms such as the camera obscura and camera lucida (pp. 9-11). The world was objectively projected, firstly through a small hole relying on the principle that light travels in straight lines (Jacobson et al., 1988, pp. 29-32; Stroebel et al., 1986), soon to be replaced by a lens-objective for sharper, and more lifelike representation.

The French language captured the objective association with photography with the word "*objectif*" (Bazin, 1967, p. 13), meaning lens, and distinguishes photography from other forms of creative practice by removing the hands-on inscription process. Bazin refers to this as the "instrumentality of a non-living agent". The credibility of this objective image of the world "confers on it a quality of authority absent in all other [forms of] picture-making (Bazin, 1967, p. 8). Barthes (1981) notes that although photography borrowed this form of technological observation from painting, it was "chemical discovery" that became "the essential [discovery]" (p. 31).

In 1727, Johan Heinrich Schultze, in a quest to let the projected light inscribe itself through a chemical process, borrowed from the findings of alchemist Christoph Adolph Baldin. While the alchemist desired to "trap the Weltgeist", or "Universal Spirit" (Newhall, 1989, p. 10), in his spirit world, he achieved phosphorus ("bringer of light"). Schultze produced a "light-sensitive compound" which he named "scotophorous, "bringer of darkness". When exposed to light, Schultze's compound turned a "deep purple" black.

Fox Talbot (2010) called this darkening effect from sunlight on paper coated with salt and silver nitrate "the art of photogenic drawing". He was also fascinated by the camera obscura's ability to project an image formed by the lens to a sharp focus in the device's rear. While tracing these "paintings of nature", he wondered "how charming it would be if it were possible to cause natural images to imprint themselves durably and remain fixed on paper". Batchen (2000) advances a conception of photography history based on the persistent desire to permanently fix an ocular view, instead of the predominant focus of historians that emphasises the notion of invention. Bate (2009, p. 22) elaborates "a photographic meaning is not fixed in history, it is the historian that does that: meaning is fixed by the discourse of history".

Batchen's (2000) shift on the historical perspective, away from the scientific detail towards aspirations, elevates an intention over the scientific invention itself. Rosenblum's (1997) reference to "the birth of photography" then seems to be a conception of the mind that directed and stimulated the scientific search for a suitable chemical process to fulfil this initial conception. It is clear from Fox Talbot's writing that the all-consuming search for a chemical solution was just a means to an end. However, it was the similarly inquisitive desire of the Frenchman Daguerre, an inventor and painter, who published his process named the Daguerreotype, a chemically coated metal plate, as the invention of photography in 1839. The French government acquired Daguerre's patented invention and made it freely accessible (Benjamin, 2008). I suggest that the freedom to practice photography since its inception laid the foundation for how photography became as accessible as it is today.

As an unregulated practice, photography allowed interested practitioners to choose their own learning paths. Leaning a skill such as photography was a long-term master-apprentice relationship that could last many years (Sennett, 2008). However, unlike the closed craftsman community in which one had to be accepted to become a craftsman, photography could be accessed freely by anyone interested. Learning from a master in the photography context (similar to other fields of practice) was undoubtedly advantageous to an apprentice. Providing a similar but focussed and structured learning in a reduced time and the focussed environment became the territory of the educational institution. I suggest that the academy by nature stimulated ontological debate and provided a setting that encouraged academic participants to question established theory in ongoing inquiry.

Commonly accepted theories provide the basis from which ontological views are discussed. Gibson (2015, p. 206) contested the traditional notion of the visual system that Kepler formulated. Contrary to Kepler's theory of the similarity between the eye and an optical lens, Gibson argues for a much more complex, non-photographic visual perception theory. He plausibly distinguishes between "ambient light", as necessary energy for the photoreceptors, and "ambient array", which is "necessary if the visual system is to produce information about the world" (2015, p. 207).

Gibson (2015, p.208) describes the "anatomical parts of the visual system" as:

> "approximately, the body, the head, the eyes, the appurtenances of an eye (eyelid, pupil, and lens), and finally the retina of an eye, which is composed of photocells and nerve cells. The body includes all the other parts, and the cell includes none of the others. All these components are connected to the nervous system, and all are active. All are necessary for visual perception."

Gibson (2015, pp. 41-50) distinguishes between illumination and radiation, noting that radiation, or energy, is propagated from a source and "comes from atoms and returns to atoms, and stimulates the retina". Illumination, according to Gibson, is the result of radiated light that reflects off numerous surface angles in the environment, and ambient light exists because of illumination. He posits that radiation is of a lower order than illumination because radiation relates to light intensity, whereas illumination provides information about the surroundings. "Students of optics", according to Gibson, do not acknowledge the importance of reflected light. Gibson uses the term "ecological optics" to

emphasise the effect that reflected light (illumination) from all directions and with different intensities have on a point. The emphasis is not the point source of light but the point at which light converges from all directions as ambient light. The ambient light is an open structure and adjusts in real-time as radiation varies or as the point of observation changes. The energy present of the ambient light must be sufficient to exceed the threshold of the photoreceptors in the eye. Energy must be "transduced from one form to another". Stimulation of the receptors alone is not sufficient for vision.

Gibson (2015) notes that "stimulus information" is needed, not just a sensation of light intensity but light reflecting from surfaces that each have unique properties. We do not see photons, waves, or radiant energy but the facts of the environment. Gibson posits that through phycology, the concept of stimulus does not just mean the "arousal of sensation" but "the arousal of a response". Gibson argues that a physiological stimulus is effectual and temporal and does not convey information that specifies the source; "only stimulation that comes in a structured array and that changes over time specif[y] its external source" (2015, p. 50). Gibson's notion of perceptual awareness is especially relevant to the photographer in the context of this study. Gibson states that there is no "discoverable stimulus threshold for perceptual awareness",

> "[i]t depends on the age of the perceiver, how well he [or she] has learned to perceive, and how strongly he [or she] is motivated to perceive".

In the same way that various individuals desired to fix light rays permanently, the public desired a tool to capture their immediate environment. I would also posit that the initial desire to participate in the invention resulted in the exponential availability of photography education globally. Similarly, the exponential and global acceptance of cell phone photography resulted in much online learning of various proportions to cater to the desire to know how to do better photography.

Photography as a multi-layered process could contribute to its ontological ambiguity. Much of this layering comes from the past. Between 1435 and 1839, concepts such as geometrical linear projection, the camera obscura, optics, and the discovery of light-sensitive materials resulted in the discovery of photography. Furthermore, Gibson's (2015) separation between concepts of "projective geometry" that

resulted in photography, and perceptual awareness, of how we see, created another level of consideration that influences the ontology conception of photography.

I suggest that these layers over time are a form of bricolage as described by Lévi-Strauss (1962, pp. 14-22), and which Crotty (2012, p. 50) summarises as making "something new out of a range of materials that had previously made up something different". In the same manner, the inventors of photography drew on various skills, knowledge, and previous developments to achieve the desire to fix light permanently. In this regard, Lévi-Strauss (1962, p. 22) separates engineering and "scientific knowledge" from "mythical or magical thought" and suggests that the notion of art is located in between these extremes. Photography as a medium was invented in relation to theories of chemistry, optics, and geometry (Bate, 2009). The notion of the in-between seems to be thematic to the idea of what photography is, with Bate (2003, p. 441) affirming that photographic practice is "more inter-textual than institutional".

Batchen (2000, p. 10) sees the photograph as an "absent presence of the photographer", referring to an effect of the photographers' eye that is replaced by the camera. Batchen relates this aftereffect of an image on the retina after the eye is closed to the image captured by the camera after the shutter is closed. The similarity between the physiological process of sight, what the photographer sees, and the photographic process of fixating the participant layers of "[n]ature, camera, image, and photographer", without any of those facets physically present in the final product. Talbot alludes to this collaboration between nature and culture, not as the one or the other, but as an economy (Batchen, 2000), which I would posit as layered collaboration wherein an identity of photography is sandwiched.

In support of Tagg's reference to an indistinct photography identity, Bate (2009) positions the theory of photography between the arts and cinema. The unfamiliar and unclear position on photography's identity could be related to Flusser's (2000) reference to the medium as a magical reality, which Guldin (2004) contextualises as "[t]he mythical world of images and circular magical thinking". The mechanical device is often described as an extension of the eye, a prosthetic (Batchen, 2000), which implies an in-

between, mechanical facilitation between subject and object, allowing subjectivity and objectivity to merge for a moment. Gibson (2015, p. 35) describes the photographic "tool" as,

> "...a sort of extension of the hand, almost an attachment to it or a part of the user's own body, and thus is no longer a part of the environment of the user. But when not in use, the tool is simply a detached object of the environment, graspable and portable, to be sure, but never the less external to the observer."

The photographic tool, lifeless as a manufactured machine, mysteriously empowers the desire to fixate a scene or object. The photographer enters the world of photography where he or she cannot exist without the machine. Flusser (2000, p. 16) describes this mysterious device in-between [my emphasis] the scene and resulting photograph as a black box that allows for input and output. The camera, I will suggest, is not between, but in-between as a between but not separate, a link that cannot be separated from the photographic process. As the mentioned life source for photography, the machine underwent rapid technological changes as it entered the digital domain, where ingenious algorithms begin to threaten this initial relationship. It seems that the emergence of a photographic identity is constantly undermined by its inventors. Sennett (2008, pp. 81-87) contemplates the machine as friend or foe as it replaced the hand in so many instances through the centuries. The unimaginable feat of freezing the painted image in a way that painting could not do might have pressed Delaroche to declare the death of painting prematurely. Crimp (1981, p. 69) quotes Buren when he addresses this ontological anxiety of painting differently, stating,

> "The work of art is so frightened of the world at large, it so needs isolation in order to exist, that any conceivable means of protection will suffice. It frames itself, withdraws under glass, barricades itself behind a bullet-proof surface, surrounds itself with a protective cordon, with instruments showing the room humidity, for even the slightest cold would be fatal. Ideally the work of art finds itself not just screened from the world, but shut up in a safe, permanently and totally sheltered from the eye. And yet isn't such an extremism, bordering on the absurd, already with us, every day, everywhere, when the artwork exhibits itself in those safes called "Galleries," "Museums"? Isn't it the very point of departure, the end, and the essential function of the work of art that it should be so exhibited?"

Batchen (2000, pp. 128-129) notes that a hundred and fifty years after Delaroche's statement, everyone seems to point to the death of photography. The more significant part of photography did not hide in a gallery how Crimp denounces the state of art. The proliferation of the photograph seemed to create technological and epistemological anxiety about what photography is or should be. The hope for reproducing reality seems to be threatened by the digital photograph that no one believes anymore.

Batchen (2000, p. 129) points to an "artificial nature" as another threat emerging in the digital age that will erode the borders between "original and ... simulation" and "thing and sign". The consideration of a perfect copy is a recent one. The positive print copy was printed from the negative in the analogue era.

Batchen (2000, p. 152) describes how Ansel Adams made about one thousand three hundred copies of Moonrise, Hernandez, New Mexico, an image Alinder regards as "the greatest photograph ever made". Adams started printing "Moonrise" in 1941 and printed the last in 1980. Adams printed the problematic negative in various interpretations throughout the thirty-nine years. All the prints representing Moonrise, Hernandez, and New Mexico differed from one another in varying degrees. Batchen describes how neither the negative, which was made under problematic lighting conditions nor the print, through multiple interpretations of prints, could be regarded as an exact representation of "the entity called Moonrise, Hernandez, New Mexico. Batchen (2000, p. 152) states,

> "[t]he complication of photography's physical identity (and we are not even talking here about the added complexities of contextual or historical determinations of a photographs' meaning) has always been that there is no fixed point of origin".

I contend that the ambivalence to the origins of photography as a medium, or the origin of the photographic image, can add to the perceived nature of photography in an educational context. It does seem that photography lives within a changing cultural and technological context.

2.4   Photography time

Benjamin (2008, pp. 280-281) details the influence that time had on the photographic result, noting that "early pictures [were] built to last". Early photography was a lengthy process. The low light sensitivity of early photographic plates demanded lengthy exposures for the sitter. Immobilising clamps for sitters and quiet environments such as cemeteries was common to ensure sitters were stationary during the long exposure and were in an environment that provided little distractions. Batchen states that the prolonged exposures "caused the subjects to live their way into, rather than out of, the moment... [growing] into the picture". Short exposures resulting from scientific and technological

development, and in contrast to the long exposures, provided an "optical unconscious" (p. 288) evidence of what we can attempt to explain but cannot see.

Hansen (2011, pp. 58-63) proposes the "principle of cinematic equivalence" by comparing the lengthy narrative, such as the cinema event, with a brief event, such as a photographic act, that lasts a fraction of a second. The photographic image is seen as a "movement-image" that interfaces the viewer with "the sub-perceptual micro-temporal domain" (p. 61). Instead of being a moment in time, "pastness" (p. 62) and what Barthes referred to as "that was", and transforming "subject into object" (Barthes, 1981, p. 13), it becomes a referent of what went before and what is in the future (Hansen, 2011, p. 60). Conceptually Frampton (in Hansen, 2011, p.60) predates "the photographic cinema" with what he refers to as "infinite cinema", thereby suggesting a "logic of inclusion or immanence" instead of "specificity".

The emergent nature of the still image that Hansen describes using Frampton's writing, for me, relates to the ontological world of image-making, which includes the image and the image-maker as conjoined entities. Within the creator space, I could include an epistemological product, which the maker-agent perceives as a "theory of reality" (Gosden, 2008, p. 2003) and "what is" (Crotty, 2012, p. 10).

Statements such as fixing "the sun of yesterday", capturing "what has come before" (Batchen, 2000, p. 133) and "having-been there or of going there" (Barthes, 1981, p. 40) are terms that describe how the photography can show the past in the future. The photographer's act is a present view that is observed and appreciated in the future. A photograph, for Berger (2013),

> "[C]elebrates neither the event itself nor the faculty of sight in itself. A photograph is already a message about the event it records. The urgency of this message is not entirely dependent on the urgency of the event, but neither can it be entirely independent from it. At its simplest, the message, decoded, means: I have decided that seeing this is worth recording".

The ability of photography, for Barthes (1981), is a "truth-to-presence" instead of "truth-to-appearance", which is a paradox of the time-line perception of photography "as a progressive linear movement from past to future" (Batchen, 2000, p. 133). He uses Bolanle's Milk Crown freeze photograph of a milk drop, as it formed the shape of a crown sculpture before it collapsed back into its

fluid state. Batchen (2000, pp. 125-127) sees this peak moment only visible by freezing a fleeting moment in time as a "question rather than a statement". The question lingers into the future, whereas the statement is at present.

Muybridge demonstrated that photography could freeze an instant in continuous motion, such as the exact posture of a person or horse's gate, which the eye is incapable of doing. The painter was reliant on the observation ability of the eye, which resulted in incorrect renderings of fast-moving subjects in painting (Mitchel, 1992). According to Flusser (2000, pp. 15-16), painters "work out" the images they want to paint in their heads and, by doing so, becomes a mediator between the scene and the painting. The form of freeze-framing that photography allows, in time, could be informative, scientific, or distinctive in capturing a moment of everyday life that the eye misses in the fluidity of life happenings. The freezing-of-time technique, specific to the medium of photography, is used in genres such as documentary, sport, and street photography, to create more exciting and narratively engaging visuals. Mitchel (1992, p. 28) describes the camera as "the ideal Cartesian instrument", a "supereye" and a "perceptual prothesis" that can,

> "[T]hat can stop action better than the human eye, resolve finer detail, remorselessly attend to the subtlest distinctions of intensity, and not leave unregistered anything in the field of its gaze. And Photographs seem to bond image to referent with superglue".

Cartier-Bresson, a prodigy street photographer, referred to the decisive moment (Watney, 1984), describing the uncanny ability to freeze unique moments, consisting of unrelated elements, in an almost perfectly balanced design. Bate (2009, p. 56) refers to this unique moment as depicting "a story in one moment" or a "pregnant moment" that sums up the "past, present and future...at a glance". Notably, the influence of this pregnant moment which Cartier-Bresson describes as "content [radiating] outward from it", emanates from two influences, his art tutor, a cubist painter, painting in that style, and Sergei Eisenstein's montage film, which Cartier Bresson celebrated (Bate, 2009, p. 57).

These influencers that conceptually birthed the unique decisive moment style of photography are another example of photography's in-between nature constantly shaped by outside influences. During the conception of photography, Talbot (2010, p. 9) observed that the lens reveals details that the

photographer was not aware of when making the exposure. The unique "supereye" quality of the

photography process, I suggest, relates to what is referred to as a photographic eye, or photographic

vision, which enables one to "see" [my emphasis] as the camera sees. I will suggest that this ontological

influencer towards a "supereye" is paramount to understanding how photography visualises the world

and should be a core focus of a photography practice programme. Photography, in the educational

context for Miholic and Esler (1977, p. 99), helps students to "see with a more discerning eye" and

enhances the "awareness of detail".

Gibson (2015, p. 55) sees the brain and the eye as elements of a complex visual perceptual system. He
states,

> "...retinal inputs lead to ocular adjustments and then to altered retinal inputs, and so on. The
> process is circular, not a one-way transmission. The eye- head-brain- body system registers the
> invariants in the structure of ambient light. The eye is not a camera that forms and delivers an
> image, nor is the retina simply a keyboard that can be struck by fingers of light."

After observation, the photographer views the same scene through the camera, making adjustments to

produce an image of what was observed. Flusser (2000, p. 16) portrays photographs processed through

the camera as having a "magical effect" with an enticing ability on the viewer. He compares prehistoric

magic to ritualistic myths "whose author is God" (p. 17). The magic of photographs, he says, come by

programmes that consist of authors' writings who are part of the programmes.

2.4.1   The camera

Niépce referred to the complete camera device as an artificial eye (Batchen, 2000, p. 23). Talbot (2010)

referred to the "eye of the camera", separating the darkened room or black light-tight box of the camera

from the eye-like lens, a statement which Batchen combines again in interpreting the statement as "a

detachable prothesis" of Talbot's body. Cartier-Bresson was so connected with his camera that he

referred to it as the extension of his eye. Flusser (2000, p. 23) remarks that tools are normally regarded

as "extensions of human organs" and questions whether the camera should be regarded as a "seeing

machine". For me, the distinction between the camera and lens as separate entities of one prothesis,

or an inseparable eye-like mechanism, could be of importance within a deeper ontological view of

photography. Anatomically, the eye resembles the concept of a darkened box with a lens on one side

and a light-sensitive surface on the opposite side (Rogers, 2011). The main difference is that "normal" vision consists of two eyes, which together, with a slight angle variation, provide us with three-dimensional vision.

Friday (2001, p. 352) points to the uniqueness of the photographic image, which he indicates as a Keplerian mode of visualising, instead of the Albertian mode, which he associates with painting. The Albertian mode suggests a pyramid that spreads outward towards the world from the eye. The picture is then a section of the pyramid called an "open window through which the subject is seen". The Keplerian picture is also depicted similarly as a visual pyramid, but the eye at the apex frames the visual field as "a representation of vision" (p. 353). The motivation for Friday's association with the Keplerian mode of vision is related to the similarity between optical image formation and the way the retinal image is formed (p. 360). The notion of a retinal image is rejected by Gibson (2015). A richer ontological understanding related to photography might require a distinction between physical optics and ecological optics (Gibson, 2015, pp. 41-57). Ecological optics, for Gibson, relate to illumination, whereas physical optics relate to radiation.

Baudry & Williams (1974-1975, p. 41) point out that the camera has monocular vision. Contrary to human binocular vision, the camera as an extension, prosthesis, or seeing machine (Rogers, 2011) reduces three-dimensionality to a two-dimensional flat surface. Interestingly, photographers seem to equate monocular vision like a standard extension and representation to their binocular vision with which depth and motion is detected. It seems as if vision, for a photographer, adapts and becomes monocular when engaging with the camera. Whereas the eye of the camera (lens) is fixed and motionless for sharply focussed results, the eyes, in comparison, scan the world in small movements multiple times per second (Rogers, 2011). I contend that this necessary scanning process which makes us aware of our world, pre-empts the photographer deciding where to point the prosthesis (camera), fix the gaze and expose the image.

The fixation and capturing of that moment are then informed by the scanning of the scene beforehand and represents what the photographer saw. It is not uncommon for professional photographers to keep both eyes open when they photograph. One eye views the scene through the viewfinder while the other observes the wider scene as elements approach the camera's field of view. We can prioritise which input signals should dominate as one eye looks through the viewfinder while the other eye is aware of the wider scene. A photographer, in this instance, could then be in a dual vision mode, sensing the bigger picture while framing the actual photograph.

Flusser (2000, pp. 21-22) refers to the camera as the technical images' apparatus. He reveals the meaning of the word apparatus as a device that "lies in wait for photography to produce something from what is available in the world". The apparatus, for Flusser, is a good cultural product that the consumer uses, or it is a good tool that produces consumer good, of which both are produced intentionally. Flusser believes that this apparatus, within the cultural sciences, pursues the intention behind the camera. The apparatus, as a tool, might raise questions about its function. Tools, for Flusser (2000, p.23), "tear objects from the natural world in order to bring them to the place...where the human being is". He relates this process of a taken object (from nature) as a process of informing the object from a natural state to a cultural state, which is called "a work", like a photograph that was informed by the camera tool, and therefore carries information.

Flusser (2000, p.24) develops this notion more decisively by pointing out that the context for the above reasoning "lose sight of the basic function of apparatuses because they arise out of the industrial context". To determine what apparatuses are, Flusser suggests that "[a]pparatuses, though the result of industry, point beyond the industrial context towards post-industrial society".

I believe photography practice education, teaches the photographer to observe a scene monocularly (like the camera) while looking at the scene stereoscopically. The camera can be associated with this machine concept that developed from a mechanical device to a digital machine. The camera obscura as a simple monocular viewing device became more refined through time. Flusser differentiates between

the tool and the machine, stating that the tool simulated a part of the anatomy of human beings, which makes them "empirical" Flusser suggests that the limitation of tools as "empirical simulations" changed with the advent of the Industrial Revolution and became "technical" through an association with scientific thinking. The scientific association with the technical translated into "machines" that were more capable (Flusser, 2000).

2.4.2 The soft machine

Mitchel (1992) suggested photography will not exist after nineteen-eighty-nine. The association with camera technology has been the quintessence of photography since its inception. The analogue world committed photography to associative terms such as negative and positive, processing, printing, and film, to name a few. I will posit that when Mitchel looked at the digital developments taking place in the nineties, he could not come to any other conclusion that it may not be possible to practice photography, in its perceived authentic inscriptive manner, beyond the analogue world.

The physicality of photography as a medium might have been the obstacle in this reasoning. Everything throughout the process of photography could be touched. The photographer was "in touch" with the medium, so to speak, handling the photographic equipment, inserting the film, processing the film, making prints from the film, and handing the prints over to the client, who also handled them as material goods.

Negroponte (1995) identified how a value shifts away from atoms and towards bits took place during the ninety-nineties. Rendering tonal values in an "analogue" photography process is seen as continuous as opposed to non-continuous in "digital" photography. The digital process is described as binary and represented numerically as ones and zeros. Toister (2020) clarifies that this distinction is a misnomer. The grains on photography film are never grey. They render black when light strikes them or are not reduced to black metallic silver when no light strikes the silver halide. Grey tonal value is possible because less of the fine grains reduces to black metallic silver in that area.

Photography in its analogue form is then binary by nature, in atom form (Toister, 2020, p. 127). The bits of "digital" photography is related to the bit resolution, and bit depth of the sensor employed, where bit depth determines "greyness", and the amount of the photoelectric sites determine the smoothness of tones and the resolution of detail.

The association of image formation on film with image formation in the back of the eye might have validated an analogue/human link that, if broken, will sever the natural association we could have with the medium. According to Gibson, this association was flawed from the start, and I contend that it only became a justifiable conception when digital sensors eliminated film. Digital sensors do not record an image. They transmit light values, similar to Gibson's conception of light-sensitive rods and cones in the eye. Bate (2009, p. 155) seems mystified that the main ontological debates between analogue and digital photography exist around the indexical and chemical traces, obscuring the fact that lenses are still used to image a three-dimensional scene two-dimensionally. He contends that regardless of all the computerisation of different media, they all kept their different identities. Bate (2009, p. 156) suggests that it is not so much the truth value of photographs that caused identity anxiety, but the "different" type of image that became familiar through the "sheer quantity of digital photographic pictures...[that]...have changed the popular consensus of photographic aesthetic values".

Toister (2020, p. 126) questions the notion that digital and analogue are different purely because of digitisation based on theories of Post-Photography and Post-Post-Photography. These theories are established because "analogue photographic images are created with a camera" whereas "digital photographic images are created with a computer". He argues that the use of optics, vertical placement of the sensor in the back of the camera, and unchanging shape of the camera indicates that digital photography is based on analogue technology. The unclear separation between the analogue and digital forms of photography, for Toister, is also evident in the fact that there is no digital photography theory that has replaced the analogue photography theory.

Değirmenci (2017, p. 256) points out the digital camera is not "a passive recording device". He notes that the digital camera does not "take pictures, it makes them" from the sensor's photo site values that are processed by algorithms into binary data. This observation of Değirmenci seems to be an inversion of historical time related to the view of Dearstyne (1955, p. 6) when he compared painting to photography. For him, the difference between painting and photography was that "[p]aintings were made-constructed from a storehouse of traditional schemes and skills and attitudes", whereas photographs were taken. The concept of making seems to have navigated full circle. The machines that Flusser (2000) refers to is now manifested in refined software-driven photographic machines that do not just acquire an image on a substrate, such as a film that is taken out and processed. The digital image is transferred to recording media, containing many images in much greater quality than film could produce. Through digitisation, the typical photography machine combined with other digital media machines to form multi-functional devices.

The argument between analogue and digital photography related to image resolution, tonal range, light sensitivity, and colour rendition, to mention a few, is so outdated that even a non-specialised photographic tool, such as a smartphone, outperforms it on every technological level. It does not seem as if photography will die soon. Instead, there seems to be an explosive increase of digital imaging devices that pervades interconnectedly through all technology with which we interact. In Bate (2009, p. 62), Lacan refers to the insatiable "appetite of the eye". Bate refers to "the true function of the eye" as filled with "voracity, the evil eye". Questioningly, Breitbach (2011, p. 36) contextualises the impact of information overload. He states that apart from the "shock picture" or "eye catching advertising piece", most pictures go unnoticed in society. Flusser (2000, p. 65) relates how we have become used to photographs "[a]s inhabitants of the photographic universe" and how we are "surrounded by redundant photographs". This redundancy is not because of the same pictures, but the number of photographs all around us, even though they are frequently changed.

Digital imaging, in this sense, I believe, contributed to a flood of visuality that consumes us on every front. It might also imply that this perception can influence how professional photography education is

contextualised. It could be that the proliferation of photography has created a common visual language that is not that unique anymore. Flusser (2000, p.65) affirms this by stating, "[t]his is therefore also the challenge for the photographer: to oppose the flood of redundancy with informative images."

Bate (2009, p. 156) notes that the domination of computer-based images challenges the typical photographic convention, introducing a new digital aesthetics that is "altering the agreed consensus on photographic aesthetic values". Images are seen as more realistic because of the increased quality and because of this new "digital code", which is not "measured against the realist codes of analogue photography", which introduces a new range of visuals that can change what the medium was.

The mobile phone, as a camera, replaced the compact camera designated for the consumer in the past (Michels, 2018). These cameras were also called snapshot cameras, which referred to "instantaneous exposures" (Rosenblum, 1997, p. 259) that could be made with little effort or experience. The ability to render instantaneous exposures in a reactive, spontaneous manner was re-interpreted as the snapshot aesthetic as it influenced the art and professional photography scene. The ultimate version of the compact camera as a snapshot device is now available to everyone as a smartphone (Cruz & Meyer, 2012). The smartphone camera provides excellent photographic quality, immediate feedback, immediate transmission, in-phone editing, and "snapvids" [my emphasis] as and when desired.

I contend that people had to intentionally carried a camera with them before the advent of smartphones. This intentionality is now superseded because of the ubiquitous mobile phone. The smartphone is now an effective photographic tool. Sennett (2008, p. 32) points out that the mobile phone resulted from a combination of radio and telephone technology. The smartphone added the camera, amongst other technologies, which resulted in a communication device like no other. The smartphone's status as a camera tool is enhanced by numerous attachments that can appease any professional not conceptually attached to the appearance of a camera. Imaging objects, events, people, and our surroundings is now an automated response that floods the world with millions of images every day.

The arrival of automated cameras, which eventually led to the mobile phone camera, had an interesting effect on professional photography. Langford (1961, p. 672) relates how automation of equipment in the middle of the twentieth century relieved the Industrial Staff Photographers (ISP) from performing "mundane tasks". Technicians could document the related processes and faults themselves, giving the ISP more time to focus on technically challenging jobs. In this sense, I suggest that automation changed the perception of professional photography, empowering the unskilled unintentionally by opening the "closed" profession of photography. The advancement of automation in camera technology eventually eliminated the need for industrial and other specialisations on site. It became easier to contract in specialised photography skills on-demand than employing a full-time photographer. The advancements in automation and digitisation led to mobile stills and video photography that is technologically capable of delivering satisfactory results for in-house industry needs.

Flusser (2000, p. 58) provides a sombre view of the effects of automation and technological perfection in camera technology on photography. He believes the "automaticity of the camera intoxicates" the user, demanding the owner to "produce more and more redundant images". These people, according to him, go blind from this "drug", causing people to observe their surroundings through photographic devices and photographic rules. The automation era seems to repeat the pattern of the onset of photography, where as many as three million daguerreotypes were produced in a single year. Flusser (2000, p. 58) states that these photographers "are not "in charge of "taking photographs" but are "consumed by the greed of their cameras, and "have become an extension to the button of their camera". It seems as if the outward directionality of the tool reversed through its auto-mode, challenging the photographer into redundancy.

Negroponte (1995, p. 170) describes how economic models of media will change from "pushing" information towards the public to the public "pulling" information to themselves when they want it. This phenomenon is evident in the current online and interconnected life that is now the norm. I maintain that this same form of automation and "pulling" can play out in photographic programmes in the

academy. The pedagogic approach generally, and for photography practice concerning this research, will have to take note of the influence of this cultural change.

Kember (2008, p. 178) notes that "[p]hotography's past is (...) its own, and yet not its own" because she relates its history to "visual technology and its social and economic issues". Technological changes seem to dictate how images are processed from capture to display, but Kember notes that to grant photography the status of new technology is erroneous. Kember (2008, p. 179) elaborates that the evolution of photography is linked to the "technological, social, [and] economic", not just the technological, which would make it "technologically deterministic". She maintains that photography has no teleology but "highlights aspects of its past" as a genealogy. Chronologically, the notion of photography progressed to post-photography (Toister, 2020, p. 127). Toister argues for a reversal in this chronological view. For him, "analogue" photography can be referred to as "pre-photography", and "digital" photography "should be called photography".

Flusser (2000, p. 14) associates photographic images with the technical image that is produced by "apparatuses", which is "the products of scientific texts", which positions them historically and ontologically different from "traditional images". Flusser locates technical images as "post-historic" third-order abstractions, from texts as second-order abstractions and the traditional image as "pre-historic" first-order abstractions. Flusser posits that the photograph is like a window to the world because its signification is similar to reality. He states that "their criticism is not an analysis of their production but an analysis of the world". For Flusser, technical images are displacing texts, and for this reason, cautions the non-criticism of images themselves because the anticipated objectivity of photographs is an illusion (Flusser, 2000, p. 15).

According to Flusser (2000, p. 17), second-order texts prompted conceptual engagement and thereby replaced historical consciousness; the technical image replaced second-order magical consciousness with imagination. Culture divided into "fine arts fed with traditional images, (...) science and technology

fed with hermetic texts (...) for the specialist elite (...) and (...) the broad strata of society fed with cheap texts", which Flusser describes as books, newspapers and flyers. He posits that technical images were invented to prevent culture from breaking up. He sees this invention as a code that brought images back into everyday life, made hermeneutic text understandable, and "made visible the subliminal magic" that appeared in "cheap texts".

Flusser (2000, pp. 31-32) describes how apparatuses became automated to simulate different thought processes in a computerised manner where the automated thinking is articulated as numbers and become a "black-box". The photographic universe is a cybernetic structure with the camera as "distribution apparatuses", which can include political, industrial, and economic management apparatuses. He describes how the different apparatuses feed into one another, resulting in a human-created "super-black-box" (2000, p. 71).

Linardaki (2021, p.4) reminds us that we are still human beings at the core in an age where artificial intelligence automation is becoming functional. She restates that even if we create computers "with human form or capabilities, they will remain mirrors of human beings (...) which are programmed just to execute orders". In the photographic sense, our machines, the camera, are already an extension of the body, and it is this body in photography programmes at HE, not machines.

2.5   The photographer and the profession

Photography students enter HE to study photography to become practitioners (Newbury, 1997). Langford (1979, pp. xi-xiii) differentiates the professional photographer from the amateur by reliability, cost consciousness, applied creativity, attitude to equipment, attitude to people, promotion (marketing), and integrity. Lanford provides a sobering perspective on a professional photographer's skills to succeed in the industry. He estimates that eighty per cent of a photographers" professional effort is spent on business-related matters. The remaining twenty per cent of applied photography is suggested as a ninety-ten per cent split between skill and creativity (Langford, 1979). These figures are

estimates but comprehensible when the context of business practice is considered. Nevertheless, the photographer has nothing to offer a client without the skill.

The activity of light (photo) graphy (writing) was labelled as photography (Newhall, 1989 p. 21), and by implication, also coined the practitioner of photography as the "photographer". The term photographer can imply that the person is a professional, but it can be anyone who takes photographs according to the given definition. In the context of this study, the photographer is someone for whom photography is a profession. However, the essential act of photography remains similar whether you are a professional or amateur.

The idea of a photographer is elusive, subjective, and I believe a preconceived idea in people's minds. I would posit that this image is currently less distinct because of the accessibility of photographic technology. Szarkowski (2009) noted that more than thirty million camera operators in the United States of America during the middle of the twentieth century versus a "handful of outstanding photographers". Michels (2018, p. 10) writes that there were professional photographers and studios in all continents by the mid-nineteenth century. The medium of photography remained attractive as a profession since its inception and "converted silversmiths, tinkers, druggists, blacksmiths and printers" into a new career (Szarkowski, 2009).

To contextualise the term photographer concerning the camera, I suggest firstly a classification related to seeing. I posit that sight is firstly appreciated as awareness and navigation sense before it is considered an instrument to appreciate beauty. An aesthetic appreciation, in my view, is something that can be developed and will be different for every person. To have eyes, then, does not make you a photographer. The ability to see naturally provides easy access to photography as a medium. A camera operator could be anyone, and by default, could be referred to as a photographer, a descriptor for someone using a tool at that moment, the operator. The photographer, for me, is not an operator, even though he or she must fulfil the operator function. The photographer uses the same eyesight to navigate

but sees more. The artist also sees more when they paint a scene from their mind's eye while their natural eye directs the physical painting.

The photographer is also restricted, like the painter, by some loosely defined rules, tools and materials that define their photography world. For the photographer, it might be an understanding of the limitations and possibilities of the camera and light-sensitive material that will record the scene, the lens field of view, the contrast ratio, and exposure influence the tonal representations. The photographer must learn to see within the photography world. Photography education should open the eyes to the photography world. Paradoxically, a craftsmanship perspective, which is often and maybe incorrectly interpreted as a purely productive orientation, could allow the photographer to see beyond the wall of mechanical and technical restrictions.

The magnitude of technical mechanics and theory that a photographer should understand to function as a photographer can be overwhelming. To lead the aspirant photographer beyond these immediate technicalities that surround them, the task of the pedagogue. This leading, beyond technicism, did not only provide a creative exploration of the medium but opened a critical view back to what this notion of photography and photographer was, is, and could become.

Earlier in this chapter, I alluded to the photographic eye cultivated by the detailed way the camera "sees". This cultivation, I maintain, is a matter of appreciation and association with the medium. It is not uncommon for artists to use the descriptive ability of the photographic medium as a reference for their art, which in turn, allows the artist to reflect critically on their practice. Baldassari and Lundell (1996, p. 6) illustrate this interaction between photography and art through the artwork of Pablo Picasso. Picasso was an ardent photographer and used photography extensively to "transcend the rules of perspective (...) of the camera obscura", experimenting with viewpoint, "superimposing images" to the extent the boundaries and confines of the photography medium. Baldassari and Lundell describe how Picasso's extensive photography exploits influenced the breakthrough for Picasso's style of Cubism, enabling him to move beyond the visual appearance of what the photograph depicted in its inscription. This use of

photography in Picasso's work was only discovered when the body of his archival material was researched. The photograph's characteristic to inform visually in an explicit manner was evident in Picasso's archival research.

For Gordin (2013, p. 77), conceptual fine art photography compares with painting, poetry, music, and sculpture as a high "artistic level of photography". Comparing painting and photography, Dearstyne (1955, p. 26) posits that painting might offer the painter a "richer" personal result but notes that the photographer, in turn, can choose freely from an infinite number and variety of visual phenomenon in the world.

Furthermore, the painter is limited, free to choose from within and without painting. The photographer is also free to choose but typically frames a grouping of objects or patterns. Deschin (1960, p. 8) fittingly states that "[p]hotography is unique as an art medium. It is neither comparable to or competitive with painting, drawing nor any other image-making technique".

Comparing photography with fine art is made chiefly to equate photography with the arts or the artistic. It seems that photography gains in status once an art or painterly quality is attached to the photographic image. The pictorialism photography movement of the late nineteenth and early twentieth century mimicked a style that resisted the inherent detailed and sharply focussed qualities for which photography was known. The pictorialist photographer Anderson believed that "that sharply focused images were merely bald transcriptions of nature, lacking the suggestion and mystery necessary for art" (Peterson, 2010, p. 19).

Szarkowski (2009) comments on how noticeable it is that artworks are essentially also an act of recognising patterns and objects in the world. The similarities in observation seem similar between painting and photographic landscapes. Szarkowski points out that photography and art require a mastery of technical skills that need to be applied with aesthetic sensitivity or "pictorial insight". I will posit that the importance of creative education exists to attend to both.

Concerning what a photographer sees, as pointed out by Szarkowski, Lopes (2003) elaborates by questioning what makes us engage aesthetically with a photograph that depicts what is out there already. Lopes posits that we can find aesthetic value in photographs where the photograph depicts the object as it is and "seeing photographs as photographs engage aesthetic interests that are not engaged by seeing the objects they are of" (Lopes, 2003, p. 433).

Lopes (2003, pp. 438-443) advances a transparency thesis for photographs, implying that the object or scene is seen through the photograph. Being aware of this, the photographer associates the actual object with what is photographed because the photograph becomes a "vehicle for seeing through it to the photographed scene". Photography as a medium allows the photographer to prescribe what is seen as a visual representation. Lopes refers to this manner of visual selection as "clear seeing", by which the photographer foregrounds "features of objects that are difficult to discern face-to-face". I would associate this manner of emphasising with drawing the viewer into the eye of the photographer and thereby showcasing a photographic vision that would not be possible without translating this vision with the medium. Therefore, selectivity, framing, and cropping of the captured image alter the context in which the photograph was taken (Miholic & Eleser, 1997). The viewer is then visually moved into the photographer's world.

The object or scene is still there through the transparency of the photograph. However, through a point of view, framing, lens selection, lighting considerations, visual treatment, to name a few, the scene becomes a photographer's view. Marvullo (1984, p. 68) point out that the eye's angle of view is forty-six degrees, which matches a fifty-millimetre lens. Changing the optics on a camera outside of this range will make what we see uncommon to what the brain is used to seeing. With this selective ability, Lopes (2003, p. 444) notes that "properties of objects [can be] difficult to discern". He posits that photography can be seen as an art form if it is accepted that photographs are transparent; he concludes that the disagreement about photography state as art since its inception "suggests that we have failed to

comprehend its nature". I will posit that this notion of illusion and play is associated with Flusser's (2000) association of photography to a world of magic.

Separating art photography and commercial photography is not exact. Waldman (1967), a studio photographer, states how renowned painters such as Daumier, Goya, and Rembrandt influenced him somehow. History is also reveals how photography influenced the arts (Szarkowski, 2009). As a studio photographer, Waldman may have had the best cameras and lenses available for his craft, but without light, he would not be able to perform his craft.

Photography as a medium exists because it is possible to record light. Deschin (1960, p. 7) states that photography can only be art if the "photographer is an artist". About the earlier statement about pictorialism, the photographer does not become an artist if he or she makes pictures that look like paintings. Maybe they desire to make paintings. Similarly, in my view, photography can only be classified as a profession if the photographer is a professional. Langford (1979, p. 35) describes the professional photographer as the person "responsible for carrying out assignments, involving the use of a camera". My research perspective concerning professional photography suggests an appreciation of what the word professional and photography imply in association with one another. Professionalism then describes how photography assignments for clients are carried out (Langford, 1979).

Szarkowski (2009, p. 9) thinks that a photographer learns from an "intimate understanding of [the] tools and materials and, secondly, from "other photographers, which presented themselves in an unending stream". Szarkowski further states that, "[w]hether [the photographer's] concern was commercial or artistic, his tradition was formed by all the photographs that had impressed themselves upon his consciousness".

The photographer's vision is then shaped intimately by the medium itself. The intimacy with the tools and materials is emphasised in Sennett's (2008) understanding of a craftsmanship attitude towards making. In the spirit of what precedes this chapter, Szarkowski (2009) identifies "the thing itself", "the

detail", "the frame", "time", and "vantage point" as characteristics and problems that are innate to photography as a medium.

For Szarkowski (2009), the thing itself is the photographers' realisation that actuality must be treasured so that the photographer can remain in control of the medium while recognising that the photograph is also not reality. The commercial photographer, in this context, photographs objects and people that represent another reality that does not necessarily exist. The photographer must pre-visualise the outcome and make choices towards this outcome.

The photographer can solve this problem artistically and not scientifically, knowing that the public anticipates photography's deceitful capability. Szarkowski (2009) posits that the photographer should adopt this lie to acknowledge eyesight as a lie and what the camera saw as the truth. This camera's truth, as a photograph, will remain while what the eye saw will not be remembered, making the photograph more real. Szarkowski refers to Ivins, who said that people believed reason to be fact at the start of the nineteenth century and believed that the photograph illustrated the truth at the end.

Crafting commercial images for clients, in my view, should be regarded similarly. The photographer becomes a magician when the photograph is crafted towards a truth that is not found in the object.

The things that the photographers take images of are captured in detail that we do not usually see. The photograph, for Szarkowski (2009), is not a "coherent narrative" but "isolated fragments" of the things out there; the detail that is captured by photography allows the photographer to open the eyes of the viewer, "suggest[ing] that the subjects had never before been seen". Szarkowski posits that photographs' lack of narrative ability does not prevent them from being read as symbols. These symbols, in commercial photography, depict an idea, and in the context of its commercial purpose, I see as an important communicative element in the commercial narrative.

As photographers, we consider the physicality of light and the aesthetic effects of light. The light from the sun is not restricted to our specific position in relation to it. The photographic device confines the sun's impression to boundaries, unlike the Palaeolithic cave art with "indistinct boundaries" (Wright, 2003, p. 18). Gibson (2015, p.59) asserts that the notion of "a closed contour, an outline, comes from the art of drawing", similar to the tracing of an object on the camera obscura screen described earlier. The framing of my practice world, therefore, influences what Cohen *et al*. refer to as "assumptions about the nature of [photographic] reality and the nature of [photographic] things" (Cohen *et al*., 2007, p. 3). Berkley, in Wright (2003, p.19), refers to the dichotomy between "what we see" in contrast to "that which we know" . Paradoxically, what we see through an objective (lens or eye) is upside down and must be interpreted, or inverted, to generate a reasonable representation of "the real".

The selected view is contained within the borders of the photographic frame and, therefore, not the actual scene it represents. For Szwakowski, "the act of choosing and eliminating" creates some tension on the edges. Szarkowski observes that the edges of photographs were not always neat, leaving trimmed shapes of objects that are not part of the main subject. When photographers intentionally use these cut-off shapes, they create balance and design that can enhance the image's composition. This form of photographic intent is similar to the notion of originality. Sennett traces the word originality back to the Greek word *poiesis*, which means "something where before there was nothing" (Sennett, 2008, p. 70; he goes on to say, "[o]riginality is a marker of time; it denotes a sudden appearance of something where before there was nothing, and because something suddenly comes into existence, it arouses in us emotions of wonder and awe".

Szarkowski (2009) compares framing to Japanese print, which de-emphasises the originality of the photographic aesthetic as frame cropping. The professional considers horizontal or vertical framing options concerning the camera sensor format but can alter or change the format in digital post-processing according to client demand.

The impression of instantaneous exposures is probed by Szarkowski (2009) when he points out that photographs are time exposures that describe a parcel of time. The exposures are never instantaneous. The "parcel of time" captured in the present always refers to the past while existing in the future (Szarkowski, 2009). It is noticeable how photographs also speak about history in a commercial sense. This history could be of products, people, industries, architecture, and the landscape, and how these subjects have changed in appearance, progress or fashion. The professional photographer will also be aware of how photographic styles and approaches have changed and how these past aesthetic elements can be applied now.

Szarkowski (2009) notes that "obscurity" through the "unexpected vantage point" was made possible through photography. He notes that it was not long before the public began to think photographically. The public noticed the altering viewpoint in the nineteenth century and described it as a "photographic distortion".

2.6   Photography teaching and learning

The literature chapter, so far, has identified ontological influences on photography. Important factors included perspectives on optical image light inscription and its relation to human vision and how this camera's mechanical eye becomes an extension of the photographers' eye. I also discussed the relationship of the photographer to the medium of photography. To see photographically implies that photographers start noticing things that only the camera can capture. The immediacy of the medium of photography appeared throughout the writing and revealed the existence of moments that we cannot see.

Sensitising someone towards seeing photographically is perhaps a simplistic way of stating what this research covers. A few interconnected concepts related to photography education should be noted here. The educational context in which this visual sensitisation takes place directs the understandings of the research; an exploration of what photography is presents the context of what constitutes photography practice as the educational subject of it. Furthermore, the emphasis on photography as a

practice emphasises the knowledge area for which the pedagogy should cater. Understanding pedagogy as a construct and how some abstractions of this idea impact teaching photography is essential for this study.

The education of practice in photography requires many considerations or, as the research question asks,

> "Which important factors can be identified as influencers to the approaches and methods of photography practice education?".

The title refers to a practice orientation as craftsmanship and posits that this could be a positive approach for teaching a photography practice programme.

Gherardi and Perrotta (2014, p. 141) express a deep connection in this regard in stating, "the craftswoman makes the product but it is her knowing-how that makes the craftswoman". In the context of this study, the photographer makes the image but it is his knowing-how that makes the photographer. This knowing-how is practical knowledge that comes by doing, and in an educational setting, through the appropriate guidance of a programme structure managed by practitioner-teachers.

As an umbrella term, professional photography encapsulates many sub-disciplines or areas of specialisation. Lanford (1979, pp. 29-57) differentiates more than twenty sub-specialisations and ancillary roles that could constitute a professional photography industry. I maintain that understanding photography as a field overshadow specialities, which becomes an outflow of what photography is and what is capable within the medium. Many overarching skills and understandings applicable to photography exist.

Langford (1979, p. 29) explains how the end of the Second World War initiated commercial and art photography through many ex-service photographers. The proliferation of new equipment and film developments at the time provided the opportunity for diversification within photography. Apart from

apprenticeships, workshops, and part-time classes in the evenings became the initial educational contact for aspiring photographers.

The photography education approach in the United Kingdom (UK) started in four differentiations (Langford, 1979). The most formal of these options was a three-level course at a polytechnic that concentrated on photography's theoretical and technical understanding. Other courses included evening workshops for professional photographers at technical colleges, craft-oriented qualifications from City & Guilds photography examinations, and visual arts courses that did not focus on examinations but on student development as visual artists.

It is apparent from the above differentiations that photography as a teaching and learning activity is related to a perception of what photography is. The course in which this study resides is historically situated within the polytechnic idea. It is accepted that numerous iterations of the polytechnic idea developed over the years. These iterations seem to have been prompted and influenced by industry, social, cultural, technological, and political factors. These changes influenced the idea of what photography is. Lanford refers to "national exams" that were set for photography at the polytechnics. An assessment structure assesses the understanding of the idea of photography in that particular academic setting.

Gherardi and Perrotta (2014, p. 147) introduces the term "formativness" to practice-based studies, which positions knowledge in the practice context "as a situated activity" that identifies the "process of creating knowledge while the practice object is made. They put forward the position that,

> "[u]nlike the artist, whose work is pure performativity, the craftsperson works within practices of creativity that contemporise a network of other actors, a market and a reproducibility of works which take account of criteria of economy and not only aesthetic ones. Negotiated within this texture of relations are the criteria used to evaluate practices and their objects."

The approach to teaching and learning (pedagogy) for photography practice is then contextually linked to the educational setting and the nature of the knowledge that will be taught and learned.

2.7   The importance of contextual influencers in teaching and learning.

Institutionalised education, such as the photography programme in this research, is context-based. This context could be influenced by the institutional identity, programme orientation, the available resources and support structure within the programme. Luckin (2008, p.449) developed a framework for learning experiences for individual learner needs, which she refers to as a "Learner Centric Ecology of Resources". This context is further described as "a situation defined through the relationships and interactions between the elements within that situation over time" (2008, p. 451).

The educational activity, both teaching and learning, needs to be free from as many learning obstacles as possible, which would prevent students being "overwhelmed by uncertainty" (Luckin, 2008, p. 450). It seems *that clarity on the approaches and methods of teaching and learning* would affect the teacher as much as the student.

Creswell (1996, p. 9) speaks about the "taken for granted aspects of [educational] place" that is socio-culturally rooted, which he links with Bourdieu's (1977) structure for experience. The pedagogic ecology that this research is searching for is related to what Bourdieu refers to when he writes about the homogeneous group. I would agree that the educational setting should "enable(s) practices to be harmonised without any intentional calculation or conscious reference to a norm and [should be] mutually adjusted in the absence of any direct interaction or, a fortiori, explicit co-ordination" (1977, p. 80). I believe the true pedagogue strives for learning harmony between all role players that impact on the educational process.

2.7.1   A context of educational craft orientation

A craftsmanship education orientation in this research refers to a *considered manner in which education is perceived*. In this research, *photography practice is seen as a craft activity that requires a similar craft-like educational approach.*

Vygotsky developed the Zone of Proximal Development (ZPD) that direct attention to the development of the students' conceptual abilities and what they can achieve with the assistance of an expert (Chaiklin, 2003; Derry, 2013). The skilful workman, which in this research context can be related to the craftsman-teacher, oversees the educational process anticipating appropriate guidance towards the established goals. The third example given by Leibniz appears mechanical, instructional, conservatively rigid and limited at first. It seems like a factory mentality, but I would suggest referring to an inner alignment that produces similar expediency. Expediency here, speaking of the inherent value from the internal functioning that is attuned with other similar devices, which we know can never be the same. Instilling a value system in education, the inner clockwork, could then produce a similar return, not in physical artefact form, inscribed by the maker's signature, but a return that bears an inclusive signature of context. Daniels (2003, p. 2) refers to a "pedagogic imagination that reflects on the processes of teaching and learning as much more than face-to-face interaction or simple transmission of prescribed knowledge and skill".

Since the inception of pedagogy, the focus on the human is noticeable in all the conceptual teaching and learning developments. Premack (1984, p. 33) states that "if the adult does not take the child in tow, making him the object of pedagogy, the child will never become an adult (in competence)". I would link this pedagogue-like orientation with practice-based education, where the pedagogue craftsman opens the appropriate doors to the student-craftsman, towards craftsman-adulthood. However, the HE context that caters to creative practice and individually focused education is complex and possibly unique.

Young and Lucas (1999, p. 107) argue that "learning is first and foremost a social process that takes place in a certain context". They elaborate on what they refer to as "four main principles for an approach to learning". Firstly, they state that "learning involves the acquisition, transfer and production of new knowledge" (…), "not just a reflection of past experience". Secondly, learning "is not just a process of knowledge or skill transfer". Thirdly, the learner participates in "a community of practice", involving the broad set of contextual role-players. Fourthly, they emphasise "access to concepts and ideas to provide

frameworks" for "reflect[ing] on practice, on subject or vocational knowledge and their previous knowledge" (Young & Lucas, 1999, p. 107). Their concept of learning is especially applicable in the learning setting of creative practice. It accommodates the frameworks needed to reflect on the making process, the theoretical underpinning required, and the experience that needs to be built on. The frameworks are provided by available assistance that the learner context allows according to individual needs. This assistance is referred by to Shabani et al. (2010, p.241) as the "zone of available assistance" for a "particular environment" that can "differ according to every student's tolerance for boredom and confusion".

2.7.2   A creative pedagogic context for photography practice education

To investigate the value perception of craftsmanship, which ascribes to action knowledge, we need to look further than the mind (epistêmê). Lave (1996) suggests that "[t]raditionally, learning researchers have studied learning as if it were a process contained in the mind of the learner and have ignored the lived-in world" (p. 7).

The distinction between an artisan and a craftsman becomes important as a conceptual influencer in the context of this pedagogic-related research. The term artisan is sometimes used interchangeably with craftsman (Bridenbaugh, 1950). The manufacture of a product, "as early as 1622", according to Bridenbaugh, was "understood to include the making of articles by mechanical as well as physical labour" (p. 2). Sennett (2008, p.144) argues that a craftsman is "a more inclusive category than an artisan". He states that the craftsman concept "represents in each of us the desire to do something well, correctly, for its own sake" (2008, p. 144). Heidegger (1976, p.13) refers to the time before Plato when the word techné, belonged to poiésis or "bringing-forth" and together "mean to be entirely at home in something, to understand and be expert in it".

Artefacts for necessity or pure aesthetic appreciation is an interesting consideration for this research. Artefacts in photography denote the photograph for artistic appreciation or client satisfaction. I would

suggest that artistic appreciation and client satisfaction should not be seen as opposite poles in professional practice education. The craftsman orientation concerning photography could then address the complete process that leads to client satisfaction. This satisfaction can result from technical ability, professional client interaction and business acumen, and a unique visual signature that projects a specific professional identity. The photography programme at VUT in which this research is situated aspires to such an approach.

Photography is a technologically intensive medium. I would suggest that this *technological sophistication* could, intentionally or unintentionally, become the interpretive face of the profession, which could also influence the pedagogic orientation for photography practice education.

According to Postman (1992, p.5), the danger for the craftsman could lie in what technology might "undo", not in what technology "can do". Postman, quotes Freud's questioning, as an illustration of the never-ending consequence of continued technological invention by asking, "[i]f there had been no railway to conquer distances, my child would never have left his native town and I should need no telephone to hear his voice" (in Postman, 1992, p. 6). Similarly, a technologically dependent pedagogy thrives on ongoing technological development and can therefore never stabilise into pedagogical holism.

Based on this phenomenon, I suggest that a technological dependant pedagogy encourages a Fordist factory model of optimised technological orientation that could fragment a focussed pedagogic expression. From this notion, I propose that an outsider pedagogical influence submits to an insider photography practitioner intent on realising a concerned pedagogic intent.

The opposite to a technological orientation was the celebration of the superiority of the mind by Aristotle and Plato. This period was known as the "the Golden Age of Greece", where "no important technical inventions" flourished (Postman, 1992). The golden age of craftsmanship came under the rulership of "an instrument of commercial enterprise", the clock, which ordered religion, commercial

activity, private lives and industrial production under the order of King Charles V (Postman, 1992, p. 27). In his book "The Question Concerning Technology", Heidegger (1976, p.16) provides a compromise by suggesting that technology possess a character that can challenge nature, producing an "unlocking, storing, distributing and switching about" that becomes a "revealing" that "never (…) comes to an end". The unlocking for Heidegger meant the "energy concealed in nature". In this context, nature and its concealed energy could refer to the concealed visual energy that photography confronts and captures with its tool. When the practitioner becomes absorbed by practice, the "[t]ool in use" he or she "becomes phenomenologically transparent" (Wheeler, 2013, p. 17).

The idea of the tool being an extension of the hand (Pye, 1968; Sennett, 2008) is a complex idea in the medium of photography where the hand gets accustomed to holding new technology within an ongoing spiral of technological development. The technological age contrasts with the stone masonry tools that remained relatively unchanged from the Egyptian pyramid construction. In relation to a pedagogic orientation, it seems that a technologically reliant pedagogy could be problematic unless it is balanced or preferably dominated by influencers that will instil lasting values that becomes technologically resilient.

For the tool to become transparent, or an extension of the craftsman, required a unique dedication from the craft-learner and the craft-teacher. The research title of this project suggests a pedagogy that promotes the values of craftsmanship in a photography practice programme. In the context of this research, craftsmanship suggests that the practice (photography) should be mastered, resulting in *photography craftsmanship agency.* This agency, like a master craftsman, would allow for confidence to deliver a good result repeatedly. In this research context, the notion of craftsmanship does not refer to unexpected chance, all the time, or good results that are the end product of ingenious social media software.

Furthermore, the research does not advance the idea that only a photographic craftsman can make pleasing images. In this context, craftsmanship relates to a professional photography practitioner

orientation and the education of a photographer towards that orientation. This research also contends that anyone who wants to be more consistent and reflective in their photography approach can adopt a craftsmanship orientation. A historical insight into the process of becoming a craftsman will follow.

From the above reasoning, it seems evident that institutionalisation of production could lead to a diminished need for person-products, which then eliminates the need of product-makers (craftsman). The decline in mastery, in a product sense, is then inevitable. I would suggest that it is not the organisation as an entity, but *the organisational objectives that direct the process of making* on the shop floor. The shop floor in education would be the classroom where teacher-student contact is the reality of education. Hareli (2015) notes the differences in institutional pedagogic approaches in a comparison between "Beaux Arts and Bauhaus educational models" (pp. 10-14), highlighting the difference in student-teacher relations and outcome requirements from each institution in the same qualification. In an overview of the Bauhaus history, Fenniger (1960, p. 269) notes the effect that political turmoil, war, and different Bauhaus directors had on the methods and approaches to teaching and learning. It seems then that the notion of *mastery should not be left in institutional hands but should become a personal quality that the practitioner adopts.*

It would also be reasonable to suggest that the apprentice becoming the journeyman, in preparation for assessment as a craftsman, should have known if he has attained the master standard before evaluation has taken place. The concept of fragmentation of the practice-making process, such as Fordism and Taylorism in Europe (Gauntlett, 2011, p. 32) could relate to the fragmentation of the educational whole. I would describe this whole as the complete teaching and learning event, which includes the importance of assessment. If separated from the student authority, assessment could be perceived as a hierarchical function that is a directive of the teacher or the institution. In this sense, I would not ascribe to the doctrine of self-determination but the *development of an authoritative sensibility through self-assessment*. This process could be supported by other participants that adhere to the same goal.

I would suggest that self-assessment does not negate an assessment guide. Rubrics or assessment criteria are often employed to guide an assessment event. I propose that the event be preceded by an assessment-in-process where the student can refer to the assessment criteria as a continuous guide while producing an artefact. Assessment, in this sense, as an integral component of pedagogy should then be considered an influencer for a photography practice pedagogy.

2.8 The theoretical pedagogic context

2.8.1 A Learner Context Model

Luckin et al. (2011) suggest a Learner Context Model that enables the student to enter a self-regulated state, considering the what and how of learning.

They continue by enveloping this self-regulatory state of the student with "obuchenie", Russian for teaching and learning (Daniels, 2003, p. 10), used in Vygotskian thinking and resulting in what Luckin et al. refer to (Fig. 1 over the page) as the "Obuchenie Context Model" (Luckin et al., 2011, pp. 78-80). The notion of bidirectionality is at the core of this model (Luckin et al., 2011), which LeBlanc and Bearison (2004) refer to as "shared experience (…) and (…) understanding" (pp. 502-504). They state that this "gradual exchange of knowledge (…) results in their mutual cognitive growth" (p. 513).

The problem-solving framework to which photography practice subscribe requires an educational environment that allows students to find themselves within their practice. The obuchenie context model requires that "at any moment, teacher may be learner, learner may be teacher and both may become mutually conditioned co-learners" (Luckin et al., 2011, p. 78). The self-regulatory state goes beyond scaffolding to a new stage to what Cahill refers to as enabling the learners to "come to think for themselves and make their own choices about how to choose" (Cahill, 2007, p. 178).
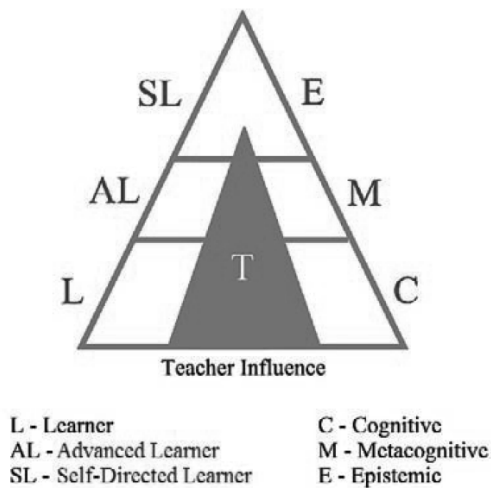
Figure 1: A multi-levelled, bi-directional continuum of teaching/learning (Reprinted by permission from Luckin, et al., 2011, p. 79)

The illustration in Figure 12 uses the pyramid context that follows the previous hierarchy examples. It is noted that the teacher influence is illustrated but not the student influence. I suggest that practitioner influence, students, or staff, is unavoidable in a creative practice environment. The Obuchenie context model in Figure 22 below could address this form of practitioner influence.
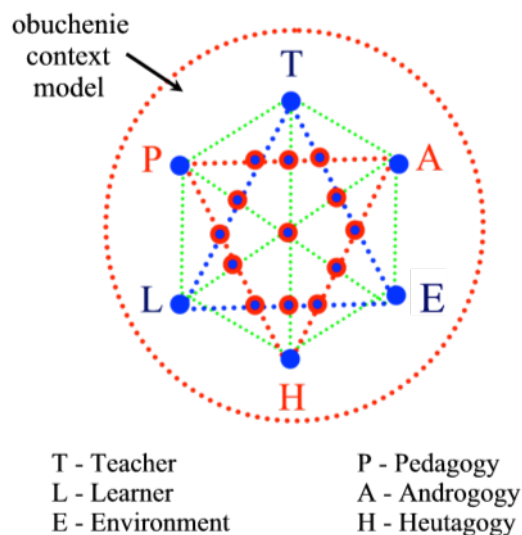
Figure 2: The Obuchenie Context Model (Reprinted by permission from Luckin, et al., 2011, p. 80)

Pedagogy, andragogy and heutagogy are the major *agogy* developments that constitute a progression in pedagogic thinking. This progression is also referred to as the PAH continuum.

The research question, "*which important factors can be identified as influencers to the approaches and methods of photography practice education*", will elicit responses from student participants. The above model suggests that the learner should be at the centre of the pedagogic concern. I suggest that the reason for the learner being in education could be an alternative to the model described above.

2.8.2   Learner Context or Learning Context?

In their proposal of a learner context model, Luckin et al. (2011, p.75) point to the current models of the education system that "are not communicative and learner-centric, but instrumental and organi[s]ation-centric". They point out that "knowledge and skills are filtered, organised, and validated through concepts such as "curriculum" and "qualifications" (2011, p. 74). I would suggest that this scenario can point to an institutionalised pedagogy. According to Vygotsky, pedagogy, in its genesis, is primarily a human activity and "central to the development of "uniquely human psychological processes" (Daniels, 2003, p. 3). Furthermore, I posit that there are two problems with the "agogies" discussed previously. Firstly, their emphasis is on the learner, and secondly, they are situated in cognitive theory that is "distanced from experience and divides the learning mind from the world" (Lave, 1996, p. 7).

I would posit that learning, not the learner, is the core and purpose of the learning event. In this sense, I would suggest emphasising the aim of pedagogy instead of the syntactic meaning. The term agogos refer to leader (Ferro, 1997, p. 38). My emphasis here would not be the denotation of the term leader, but the connotation, to be led somewhere. Learning as the journey should be celebrated in such a context.

A learning-context, instead of a learner-context de-emphasises the possible hierarchical position of one of the role-players in the educational context. Gravett (2004, 2005) identifies a respectful relationship between three role-players in a learning centred triad.
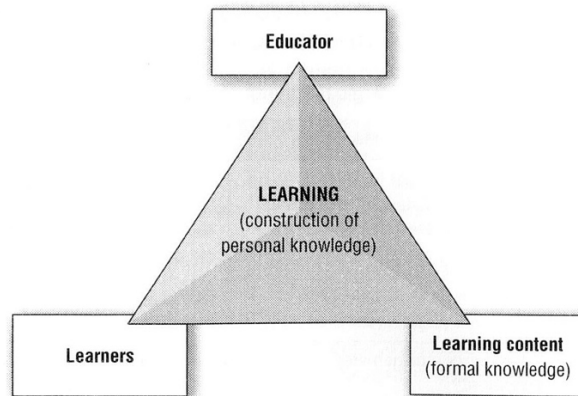
Figure 3: Learning model (Reprinted with permission, Gravett, 2005, p. 41)

Her triad model (Figure 3) represents knowledge construction that is dialogically facilitated between the teacher (educator), student (learner) and learning content input. Within this triad, she identifies the contextual influencers of learning as the learner, teacher, and content. Creative practice learning-making lies at the epistemic centre of this research and would then specify the learning in such a triad. This learning framework could work as a possible dialogic pedagogy framework for photography practice. Gravett's (2005) model suggests respectful participation that is free from participant dominance. Instead, learning is exposed to multiple and respectful opinions, where opinions, for Mezirow (1997), are "subject to continuing change" (p. 6). I see continuous change as a form of pedagogical creativity. The artlike quality of pedagogy that Knowles (1970) encourages could refer to the de-systemised and unplanned nature fundamental to the original pedagogic idea. The original pedagogic idea seems to be individually-centred and purposed for individual learning. Creativity and adaptability, in this sense, could then cater for distinct individual needs.

2.9   Maker knowledge, as context

I would suggest that a dialogic association to pedagogy, in this sense, would require distinctive participatory voices. As a construct of many voices, this form of pedagogy becomes a participatory educational expression, or pedagogic "heteroglossia" (Bakhtin, 1981, pp. 270-327). The multi-voiced pedagogy becomes a pedagogic narrative dependent on its characters in a particular time setting,

expressing the pedagogic character of the time. Influencer opinions guiding the pedagogic narrative could then include the student (changing year by year), the teacher (changing as staff change), the institution (changing as institutional directives changes), the course curriculum (changing with industry developments), the technology (changing with technological developments), teaching orientation (fine art or industry-related), and more. Digital networks and technology would constitute the most significant change agents in educational programmes, especially technologically entwined programmes, like photography. Digital networks and technology can connect with an imperceptible reality.

Halliday (1978) identifies two classes of knowledge professions as "descriptive forms" science and scholarship) providing "technical authority" (p. 37), "prescriptive forms" (law and religion) that provide "moral authority". Freidson (2001) addes "the arts" (aesthetic), which provides "aesthetic authority". In Halliday's suggestion of descriptive and prescriptive forms of knowledge, there is the possibility of an overlap in knowledge authority, which he refers to a "syncretic" forms of knowledge (1978, p. 37). I would suggest that even with Frierson's addition of aesthetic knowledge, maker knowledge, such as photography practice, could be syncretic in its dependence on technical and ethical knowledge forms.

The production of knowledge in the traditional academy is normally described as Mode 1 knowledge. Mode 1 primarily denotes "basic university research" (…) "that is being organi[s]ed in a disciplinary structure" (Carayannis and Campbell, 2012, p. 3), supporting a Newtonian model that is "considered sound scientific practice" (Gibbons et al., 1994, p. 2). The implementation of knowledge-based application and problem solving is commonly referred to as Mode 2 knowledge production. Mode 2 knowledge production is enfolded with words such as "context of application", "transdisciplinary", "heterogeneity" (Carayannis and Campbell, 2012, p. 3), and is described as being "useful to someone" (Gibbons et al., 1994).

The novelty of Mode 2 knowledge production, specifically related to the sciences, is questioned by Hessels and van Lente (2008). Their conclusion is based on comparing attributes between Mode 1 and Mode 2 knowledge production, as depicted in Fig 4 below. In their view, conceptual thinking in the past such as, finalisation science, strategy research/ strategic science, post-normal science, innovation

systems, academic capitalism, post-academic science and triple helix has surfaced in academic articles and book publications and laid similar foundations that promoted a research relevance with the non-academic society (Hessels and van Lente, 2008, pp. 743-748).

Attributes of Mode 1 and Mode 2 knowledge production

Mode 1	Mode 2
Academic context	Context of application
Disciplinary	Transdisciplinary
Homogeneity	Heterogeneity
Autonomy	Reflexivity/social accountability
Traditional quality control (peer review)	Novel quality control

Figure 4: Attributes of Mode 1 and Mode 2 Knowledge (Reprinted with permission from Hessels and van Lente, 2008)

Hessels and van Lente (2008, pp. 755-756) further indicate that the concept of Mode 2 knowledge production is empirically questionable, conceptually incoherent, and possibly politically biased. Their research highlights that the Mode 2 debate is mostly situated within the traditional university setting where knowledge is perceived as theora, not in a more applied UoT setting, which promotes applied knowledge. For Gibbons et al. (1994), Mode 2 knowledge production flows out of the traditional Mode 1 knowledge production and shifts towards what Wagid (2002) refers to as "a reflexive praxis [that] can be considered doing action" (p. 470). Carayannis and Campbell (2012) propose Mode 3 knowledge which is characterised by innovation that embraces the academy, the industry, and the government. In relation to this research, it seems as if the "mode" progressions become more abstract and suited for discussions at institutional, corporate and governance levels.

The UoT, industry-relevant educational context seems to be de-emphasised by educational theorists favouring more traditional academic environments. The notion of pedagogy as a theoretical construct is mostly discussed in the context of school education or the education at the traditional university. It, therefore, lacks a practice nature in such discussions. Therefore, a discussion of *practice as knowledge* in more detail is necessary to understand the knowledge context of this research.

The relational nature of this research addresses *a pedagogy for creative practice* that requires relational consideration in decision making. The teacher of creative practice has to balance the appropriate mix of theoretical understanding and practical application so that the student can "relationise" between these factors when making or acting towards artefact creation. Aristotle referred to this practical knowledge as practical wisdom (Aristotle, 2011).

2.10 The pedagogy of the Bauhaus as crafts workshop

In the early to mid-twentieth century, Moholy-Nagy developed what I will refer to as the educational craftsman workshop. Moholy-Nagy's pedagogy was based on the unique Bauhaus design school founded by Walter Gropius (Gropius & Dearstyne, 1963). The purpose of the Bauhaus, for Gropius, was to do away with "intellectual work over handwork" (Moholy-Nagy, 1947, p. 20) and "establish a new guild for craftsman" (Gropius & Dearstyne, 1963, p. 16). Gropius, according to Fenninger (1960, p. 262), grouped strong academic staff "into a nucleus of influence", which I will posit as similar to Sennett's reference to the master craftsman "genius". In the Bauhaus instance, the master craftsman genius is represented by a cluster of teacher excellence.

However, students eventually resisted the notion of genius and wanted to be their own master. Barriers between art and technology did not exist in the Bauhaus, neither did the emphasis on specialisation. Students could pursue ideas instead of projects and were not assessed or graded but were excluded from the school if they did not produce work (Fenninger, 1960, p. 270). This pedagogic approach produced far fewer failures than traditional institutions at the time.

After the closure of the Bauhaus in Germany by the Nazis, Moholy-Nagy founded the New Bauhaus in Chicago, United States (Findeli, 1990). Moholy-Nagy designed a course supported by a holistic pedagogic approach that catered for the whole person (Malherek, 2018; Moholy-Nagy, 1947). Moholy-Nagy was not interested in pure vocational training and knew that technology would always change, but

"fundamental attitudes and emotional capacities" could always be applied to new technologies (Malherek, 2018, p. 52).

Findeli (1990, p. 4) refers to the almost impossible task of defining design as a discipline. A possible reason for this is inferred later in his publication (p. 7) when he relates an underlying polarity between curriculum and pedagogical method as the main ingredients when setting up any educational program. He suggests that emphasising either one of these categories could indicate important course orientations. If the emphasis is on curriculum, the programme will be "content oriented" resulting in a "characteristic profile" that is vocational. If the focus is more on pedagogy, the educational environment is "process oriented" and more "humanistic". My research did not intrinsically favour either of these polarities over the other. The focus on the pedagogic component is because of its ambiguity and possible lack of understanding, leading to possible conceptual neglect amongst photography teachers.

In the spirit of reflexivity, it is then important to reflect on some evolutionary aspects of the pedagogic notion before finding valuable connections between Moholy-Nagy's pedagogic approach for the design course he developed at the Design Institute (DI) in Chicago. The relevance of Moholy-Nagy's approach is related to his claim that photography is "the quintessential, indeed prototypical, optical medium for the modern world" and defined the medium as the "design of light" (Smith, 2006, p. 11).

2.10.1   The idea of pedagogy in this research

The importance of the pedagogic notion is underlined by van Manen (1977, p.9) when he states that "[i]t is possible to learn all the techniques of instruction but to remain pedagogically unfit as a teacher." The practice of photography is synonymous with a vast range of interconnected technologies and related techniques that can easily distract from the learning approach. I believe a pedagogic approach should subsume module technicalities to provide a teaching and learning perspective that guides the "how" of the module towards the "why".

Historically, the paidagōgos (pedagogue) were both "leaders and custodians" (Longenecker 1982, p.53) Festa, 2006, p. 6) for Greek families. The more modern use of the term pedagogy originates from monastic schools in Europe before the 12th century, with Greek origins meaning the paid "leader of" (agogus) the "child" (McAuliffe et al., 2009; Regelski, 2002). The notion of teacher leadership embodies subject (module) specific expert knowledge guidance. Shulman (2004) refers to Joseph Schwab's thinking exploring subject knowledge as subject structures (pp. 201-202). These structures, for him, include substantive structures that include the way the basic concepts of the subject are organised and syntactic structures that embody the manner "in which truth or falsehood, validity or invalidity, are established". Syntactic structures emphasise the "why" mentioned earlier. In a photography practice relation, the why can then suggest a practitioner "knowing" through personal practitioner understanding. This special learning engagement is exemplified by Knowles' (1975, p. 20) pedagogic association as "as the art and science of teaching".

The emphasis on teaching within these references points to the theoretical notion of the pedagogic concept as it relates to children. This teacher focus also emphasises the transmission of knowledge. Van Manen (1991, p.xi) asserts that "parents [were] the original educators", in a pedagogical sense, and therefore the original custodians of a moral orientation to teaching the child. I shall posit that teacher dominance could quickly become the dominant way that photography practice is taught. I would suggest that this instruction mode is more prevalent when the activity, such as photography, is preceded by an overwhelming sum of interconnected technicalities.

Van Manen (1991, pp. 5-7) invokes the concept of *in loco parentis*, in the place of the parent, on the pedagogue, the leader of the learner (child). In this sense, pedagogy refers to a caring relationship between the teacher and student. The term pedagogy is still common in the HE context. Watkins and Mortimer (1999, p.1) believe the original use of the term "derived from French and Latin adaptions of the [original] Greek" words "are now obsolete". I will suggest that the essence of the original term invokes a similar responsibility to the child that is now a student, and in the context of this research, a

prospective practitioner. In my view and the context of in loco parentis, the aim is to teach photography, not photography technology.

Furthermore, and in my view, the HE is just a component within the educational domain and therefore embodies the overarching notion of care, considering its etymological origin. I would suggest that HE teachers are then not exempt from this notion of custodianship. I would suggest that systemised education could mask the custodian-educator behind course curricula, teaching processes and technicalities. I this sense, the practitioner teacher agency must forefront a pedagogic approach above a more didactic approach.

The difference proposed is that "didactics flows from a closed interpretive system (…) [with] (…) a slight tendency towards the behavio[u]rist organisation of learning conditions, while pedagogy operates within the logic of the open system and of adjustment to events" (Bertrand and Houssaye, 1999, p. 44). Furthermore, didactics cannot be "strictly (…) applied in the classroom where interactions are unavoidably plural, social, (…) [and] cultural", and focus on "learning whereas [pedagogy] takes the complexity of classroom events into account" (Bertrand and Houssaye, 1999, p. 44). A crucial difference is "found at the sociocultural level" (p. 34). Bertrand and Houssaye refer to definitions from several didactiticains concluding that they draw on the science of cognitive psychology and point to didactics' interest in the "learning content (…) [that] (…) becomes a knowing" (Bertrand and Houssaye, 1999, p. 49). For Mavilia (2016, p. 59) pedagogy looks at the "social subject", which considers "a larger variety of variables" . Pedagogy recognises that the learner is "more than a cognitive subject", focusing on the full potential of the student's character (p. 49). Walker (2006, p. 12) supports this social characteristic of pedagogy by adding that it is "socially inflected by the identities of teacher and students". Shulman (2004, p.203) refers to "pedagogic content knowledge" that fails to connect with the content of the subject but with how difficult or easy it is to understand the content. In this research, the practitioner teacher teaches from deep photography practice experience that draws the student into a pedagogy "that extends beyond only the role of the (…) teacher (…) where the knowledge is mediated, where power circulates, and social and institutional structures penetrate" (Walker, 2006, p. 12).

In this research, pedagogy is used to denote the approach to the teaching and learning orientation objective that promotes a value-laden approach to creative artefact making. This pedagogical view subsumes the didactical planning towards the goal. The proposed pedagogy should align with Tochon and Munby's (1993) explication that didactics is more diachronic, focussing on planning over time, whereas pedagogy is more synchronic, dealing with the reality that is presently happening in the learning context (Bertrand & Houssaye, 1999, p. 44). Van Manen (1977, p.2) echoes this reality when he refers to pedagogy as "constant practical acting in concrete situations and relations" in the "lived experience".

I believe that this constant leading and influences "that might shape (…) [the] (…) human activity" (Hamilton, 1999, p. 136) of the individual learner should remain one of the central objectives for the photography practice pedagogue. Herbart, a nineteenth century philosopher and founder of pedagogy as an academic discipline, emphasises that education cannot be identified with other occupations because it is a "a sacred mission" (Williams, 1911, p. v). van Manen (1991, p. xii) refers to the educational occupation as "an influence (…) that lives by example". In my experience, the educational shaping of a photography practitioner is taxing and takes time.

Smith refers to the conceptual pedagogical space as the *pedagon*, a cultural space (Jeraj, 2000, pp. 5-7) with "issues surrounding pedagogy [that] are contested, enacted and inhabited" (in Smith, 1999, p. ii). Pedagon denotes a space for educational contestation from *agon* or agony. The agony denotes a struggle for "something of great importance" (Jeraj, 2000, p. 6), paradoxically turning the struggle of the pedagogue slave that originally led his master's child into a slavish agony by the learner towards emancipation through knowledge.

The photography pedagon, as a place of practice learning, where the practitioner learns from mistakes described as a place of "enlightenment through practice" by Sennett (2008, p. 96). Practice, in this

context, becomes a willing engagement with failure that turns practice into a "narrative rather than a digital repetition" (Sennett, p. 160).

Jan Amos Komensky (known as Comenius), who was "recognised as the pedagogical genius of the seventeenth century" (Maviglia, 2016, p.59) separated didactics from pedagogy by establishing pedagogy as "its own research field". He also conceived the pedagogic space in age groupings, which included three groups for children and a university group for students of nineteen years and older. I would argue that recognising an age grouping separate from school at the inception of pedagogic research supports the use of the term in a generic fashion while being aware of sensitivity to its approach related to the age or maturity of learners.

My observation is that pedagogic convictions and orientations in art, design and photography education settings are vague if they exist at all. My personal experience as a photography teacher in an art and design department is that the primary educational focus of academics in these environments is on curricula development, which relates more to the pragmatic aspects of day-to-day academic operations. The pedagogic focus of this research might suggest that the notion of pedagogy is superior to curricular and didactic concepts.

2.10.2 The pedagon of the new-Bauhaus

The unique Bauhaus educational concept of the early to mid-twentieth century stands out as a design experiment that died prematurely. The extent of creative production achieved in a short-lived educational life was phenomenal and regarded internationally as the foremost design school of the time (Malherek, 2018, p. 53). As one of the experimental ingredients, photography was eventually established as a significant component by Moholy-Nagy. After the closure of the Bauhaus in Germany, Moholy-Nagy established the new Bauhaus in the US with similar foundation course principles (Malherek, 2018). Walter Gropius established the original Bauhaus philosophical idea as a "way of being" instead of producing objects (Kelleher, 2019 - 2020, p. 70). Moholy-Nagy's pedagogy, which was

based on this foundation and expounded in his publication "The New Vision", received praise as the "standard grammar of modern design" by Walter Gropius himself (Moholy-Nagy, 1947, p. 6).

Students experimented and made more objects of value than any other design education facility in this human-centred philosophical context. I believe this success is ascribed to a dialectic between pedagogical care, towards excellent design, and inner contestation as proposed by Smiths' notion of the pedagon. I propose that the inner design contestation is related to Moholy-Nagy's holistic view of human development in the design context. Moholy-Nagy (1947) expressed his concern about the current human development approach that emphasises one calling. He contrasts this view with the primitive man who was a "hunter, craftsman, builder, physician" (p. 14).

Moholy-Nagy ascribes this lack of holism to "tradition and authority" and a lack of self-confidence that prevents man to experiment daringly. The instructionist mode of schooling, which influenced the approach in HE, is, in my view, the tradition and authority that he suggests. The Obuchenie Context Model that I referred to earlier was conceived as a solution to an instructionist mode of teaching and learning. In this context, they combine the pedagogic approach of developing a learner's understanding of a subject, with the andragogy approach of the teacher-directed by the learner, with the heutagogy approach, shifting the what and how to the learner (Luckin et al., 2011).

The clichéd notion of learner empowerment could be much more straightforward in my view. Instead of empowering the learner in the unchanging context, I believe the learner can be empowered by revising what constitutes a holistic educational environment. I believe photography education has evolved from broad skills, in the beginning, to narrowly confined specialities and again to current demands of broader knowledge skill sets. I will suggest that this current demand is technologically induced through digitisation.

Digitisation is now the common language that erodes discipline barriers, providing technological tool-based access to other specialised disciplines of the past. A caution to this reasoning is that digitisation

and software are only technological languages and tools that substitute disciplinary know-how. Digitisation can be regarded as a set of "quantitative acquisitions", which for Moholy-Nagy, advances "no intensification of life, nor widening of its breath" (Moholy-Nagy, 1947, p. 15). However, as digitisation became a part of our lives, it is not a technology separate from us, but a part of us. Negroponte (1995) refers to this state as "being digital", which has evolved from separate specialisations such as the darkroom, processing, and printing facility, or finishing studio to digital infrastructure and the world in which the photographer lives.

Negroponte (1995, p. 230) notes that competing specialities of the past now collaborate in the digital domain. I will posit that photography consisted of the mentioned internal technical specialities apart from design and art-related specialities. These separate processes that competed in craftsmanship priority partnered digitally towards greater control and manipulation of the medium. Being digital, in this sense, has not only brought about a curricular change but affected the way we are and should result in a pedagogic change that concerns itself with this being.

Together with the idea of holism, the Bauhaus shaped the "school" idea towards "a community of workers" (Moholy-Nagy, 1947, p. 19). The notion of accord through practice is evident for me in this approach. It is agreed that everyone is unique, different, and special in their ability (Greene, 2012; Sennett, 2008) while needing a community of practitioners to reflect on personal progress. The strive towards an organic connection between industry, the machine, and man, for the Bauhaus pedagon, was realised in the value craftsmanship (Moholy-Nagy, 1947, p. 20). Gropius was convinced that the subjugation of handwork to intellectual work is fabricated and "pointed out the great value of craftsmanship" towards an organic experience with making.

This form of organic experience as a digital being might appear contradictory. Gropius provided a clue to the realisation of an organic experience when he proposed that "the designer has to think and act in terms of his time" (Moholy-Nagy, 1947, p. 20). The analogue processes of photography dictated a slower time duration between the steps towards photographic evidence. I will posit that this necessity did not

express the photographers' time. It was a necessity that every photographer wanted to speed up without realising the effect that time has on the making process. One of Ruskin's seven lamps of architecture for the "troubled craftsman" was "the lamp of memory" (Sennett, 2008), which emphasises the value of ingraining a skill or maker knowledge, that time can only facilitate.

Time, in an institutional setting, is, in my view, a false measure of attaining proficiency because we are all different in the way we respond to knowledge internalisation. Knowle's notion of andragogy, in which adults' learning needs are seen different from children, identifies three "ultimate" needs for the adult learner, i) obsolescence through "knowledge and skills that they will need to live adequately for the rest of their lives", ii) "complete self-identity through the development of their full potentials", iii) and an "ultimate need of individuals… to mature" (Knowles, 1970, pp. 23-24). The concept of lifelong learning is evident in this perspective. It opens a realisation that learning does not stop when the university closes its doors at the end of every academic year. In the context of this research, the craftsman specifically does not stop learning, especially if he or she is associated with a learning programme that lasts three or four years.

I will suggest that the above theoretical conception of what should be happening in a Bauhaus type pedagon could be relevant. The practice nature of a creative, practical course will dictate the particular values and assumptions of the course.

Moholy-Nagy's Bauhaus course in the US was based on the traditional Bauhaus foundational first year. Students experimented with various techniques and materials to overcome fear and self-consciousness. Moholy-Nagy referred to these two aspects as "the most serious psychological hindrances in life". He insisted that creative education must focus on man and not the product (Findeli, 1990, p. 9). He used the original Bauhaus principle of combining art and technology to conceive a unique pedagogic approach for the course. The process was known as *maieutics*, and beginning at the foundational level, emphasised problem-solving characteristics in the projects.

Findeli (1990, p. 9) notes the superiority of Moholy-Nagy's course over the original Bauhaus course through its three successive stages namely, "(1) observation, perception, and description; (2) systematic exploration and analysis; and (3) conscious manipulation and action, leading to the eventual mastery of design." Moholy-Nagy also added a scientific element and a component of technological arts that included photography. The technological and scientific components were added because of the US context and rapid technological developments that took place.

The contextual consideration, I believe, as it was discussed in theoretical detail earlier, is what differentiates courses. The course context, in my view, is a complex mix of factors such as institutional level and type, course orientation and objectives, teacher strengths, technological, cultural, and critical developments, industry evolution and government prerogatives. I do not believe there can be an ideal formula containing these factors. However, if appropriately considered, I will posit that these factors can yield a context that may shape a pedagogical approach for a specific department. The course in which this study was conducted experienced many contextual changes that cascaded down from a significant political dispensational change.

One of the most important contextual factors that resulted from this change was the student demographic transformation. At the time, we did not realise how this one factor would influence every aspect of the course. I believe it provided the necessary ingredient for levels of innovation that would not have been possible another way. The pedagon, or place of contestation and agony, became the academic planning and management before the course became the academic pedagon on a teaching and learning level. I believe the complexity of factors related to the pedagogic orientation of education prompted theoreticians to further develop conceptions of the pedagogic idea.

The re-evaluation of the existing models of education produced the educational approach known as Heutagogy (the management of self-managed learners). Whereas Pedagogy, Andragogy, Geragogy and Humanogogy focusses on the social grouping dimension, Heutagogy is concerned with the complex world that we live in, and the demands that this world places on learners. While Pedagogy and

Andragogy focusses on how children and adults learn, Heutagogy steps back and interrogates the impact of our technological age on learning, whatever the social category (Blaschke, 2012). Blaschke points out that Pedagogy and Andragogy fall short of "preparing learners for thriving in the workplace" (2012, p. 57). Hase and Kenyon suggest that complexity theory, which is underpinned by notions such as "emergent nature of change", "agent interaction", "inherent unpredictability", "feedforward and feedback", "autopoiesis", and "non-linearity" (Hase, et al., 2006) need a learning theory to enhance learning at work, drawing on experience. Many of these ideas align with the factors for contextual consideration mentioned earlier.

The *progression* (my own emphasis) is from self-directed (Andragogic) to self-determined (Heutagogic) is seen as a continuum (Blaschke, 2012), away from teacher guidance and towards self-determination becoming completely "learner-centric" (Luckin et al., 2011). According to Blaschke (2012, p. 63), who also refers to McAuliffe et al. (2009, pp. 16-17), Higher Education institutions are resistant to such a radical change away from the educational discourse movement from Pedagogy to Heutagogy. Reasons for the resistance are complex and might include changing established teaching methodologies and monitoring standards by professional boards in some courses.

Various researchers have interrogated this transition theoretically in journal articles, conference presentations and proceedings, educational blogs and books (Blaschke, 2012; Canning, 2010; Hase and Kenyon, 2007; Hase et al., 2006; Luckin et al., 2011).

The "agogy" discussions seem to focus on cognitive strategies that assist the learner in assimilating and understanding knowledge. From this brief overview of different "agogy's"*, I suggest that the implementation of a tailor-made theoretical understanding of approaches and methods to teaching and learning for HE, in general, is not likely*. Instead, it seems as if the pedagogic participants are only further isolated from the educational activity to fuse the discipline and education. Mann (2001, pp. 8-9) refers to this form of isolation as alienation, which can happen in pedagogic environments in which students are passive or active participants.

Moholy-Nagy (1947) notes that the industrial age, with an economic objective, created the need for specialisation. Specialisation required specific educational environments, which resulted in vocationally oriented institutions. The craftsman was interested in the complete product. Specialised industries, and specialisations within the industries, created a lucrative mass production system, but eliminated the sensitivity and perspective between detail and the whole. Moholy-Nagy observes that the creative ability of the worker was inhibited in this process, resulting in a lifeless system of specialisation.

The resulting vocational classification seemed to have created a perception that fed a classification structure towards more separation. The intentional separation of education into constructs such as academic, vocational, liberal, art, humanities and sciences did not bode well for the theoretical conception, into teaching practice, of the original pedagogic intent. Many of the "agogies" seem like a desperate attempt for specialised answers, which may only be resolved if the holistic human is placed back at the centre of the discussion. Moholy-Nagy' (1947, p. 22) anticipates nothing less than a revolution as a possible remedy to the liberal/ vocational schism. He states that, "for most people formal education merely means an abbreviated, intellectually condensed form of other people's experiences, the result of which can easily be utilised to earn one's living".

This research project, thus far, has alerted me, that my personal experiences in a specific education setting can easily be cloaked by interpretive research dogma, as justification for research contribution. Interpretive strategies as a research approach allows for this justification, however, the process and application of reflexivity, would seem to provide an argumentative level of defence that directs the research perspectives towards usefulness.

This reflexive perspective provides some comfort that the research question asks,

"Which important factors can be identified as influencers to the approaches and methods of photography practice education",

can be answered interpretively through various perspectives including historical, social, educational, theoretical, and empirical data. The notion of reflexivity, which will be addressed in the methodology chapter, is described by Alvesson and Sköldberg (2018, p. 397) as, "...a precarious balance between accepting the existence of some sort of reality 'out there' and accepting the rhetorical and narrative nature of our knowledge of this reality".

3   Methodology

3.1   Introduction

The literature review concluded that the search for a pedagogic understanding of photography does not lie within the scope of pedagogic theory. The theoretical perspective provides terminology and a language to describe phenomena, but it has little to offer a creative practice such as photography. The notion of an influencer for pedagogic understanding is featured throughout the literature review. These suggested influencers pointed to concepts associated with the epistemological orientation of practice, which could be explored in the data collection phase of the research. The literature review confirmed the importance of a practitioner response to answer the research question satisfactorily.

To find answers to the research question, I had to position my research within the research world. I suggest the literature review function as an outsider voice in need of an insider practitioner voice to suggest a possible photography practice pedagogy.

The research question, "Which important factors can be identified as influencers to the approaches and methods of this creative practice education?" reflects the search by student, teacher and professional practitioner research participants to identify influencers. In this regard, I examine voices in the literature review that might shape the data collection phase of this research. I suggest that theoretical conceptions of pedagogy do not translate into the realities of a creative practice environment. However, it does create another layer of understanding that contributes to a more holistic understanding of the photography idea.

Examination of an ontological understanding of photography revealed that photography as a concept can be understood in relation to its genealogy, historical perspectives, technological development and its unique optically mediated view of the world. For me, this ontological layer became a sandwiched 'layer of layers' that allowed different perspectives to position themselves in relation to one another. This influenced my idea of what photography is, so that I sought a deeper understanding of its

significance and how this insight impacts teaching and learning perspectives. I hold the view that the pedagogic idea for a creative practice will become more apparent when theoretical thinking is contextualised with situated practice experience.

The aim of the data collection in this research is to better understand the factors that influence the pedagogical orientation of a creative practice photography programme within a specific Higher Education setting. An overarching research process of reflection and reflexivity was adopted in this research. The data collection phase elicited comparable practice experience responses from practitioner perspectives. This multi-layered process is expanded on later in this chapter.

A pilot study preceded the data collection to test the efficiency of the interview approach. The refined questions from the pilot study were used in the main study to elicit responses from participants in the search for influencers. The pilot study process is discussed in Chapter 4.

This chapter starts with me positioning myself as the researcher and research instrument in the research. I am a photographer and teacher of photography; this perspective is an essential contextual ingredient in this research. My contextual position as photographer and teacher in the research setting positions me uniquely within this study.

In the spirit of reflexivity, in which this study is conducted, I need to acknowledge my research related experiences and motives that contribute to my value system. Gabriel (2018, p. 145) states,

> "... qualitative researchers' own previous experiences, sensitivity and self-knowledge can be valuable resources, enhancing their engagement with their empirical material and deepening their understanding of its meaning and significance. (...) qualitative research, whether conducted through interviews, observations or even textual analysis prompts the researchers to engage emotionally with their informants, inviting researchers to respond empathetically with the experiences of other people and groups."

Alvesson and Sköldberg (2007) also caution against over emphasising a personal dimension, or any other dimension without the necessary input and mirroring views against other views, which might "limit the horizon too narrowly" (p. 327).

3.2   Locating myself in the research, as a photography practitioner and teacher

My life as a visual imaging practitioner and teacher in photography has been one of constant problem solving as I have dialogued with the voices in the photography world. I had always regarded my voice in my work as personal, something that I did not need to confront. This lack of confrontation sheltered a deep connection with my practice that I did not want or need to understand.

Figure 5: "Looking up" (Mathee, 2004)

I perceive photography practice, specifically my location photography as an immersive activity, in which the photographer must personally connect with the whole ambient array of environmental information through the camera. For me, contact with the landscape is not a matter of arrival, which implies departure. Nor is the contact with the landscape a visit, which implies duration and the unfamiliarity associated with being a stranger. I prefer being air, grass, soil or a tree in the environment, instead of being a specific human, who dwells somewhere else.

Sennett (2008) refers to the craftsman at home in his workplace. I believe this blending between home and work does not imply unprofessionalism, but rather refers to who I am as a photography practitioner in the environment of practice. For me, the notion of mastery relates to a professional competence that helps the photographer be at home with technique and the situation. It is a form of becoming part of the environment that I want to photograph. This connection with the environment typically takes time,

and sometimes it is better to climb the mountain before you photograph it or walk to the next mountain instead of driving there.

Notwithstanding the above, I remain very aware that I am an intruder and a visitor. I believe this knowledge informs how I see and relate to the environment. This awareness of being an outsider does not prevent me from exploring the landscapes as I find them in their shape, texture and elements. My form of exploration excludes a form of visual planning that includes where and when the sun will set and rise or whether it will rain or not. What the landscape presents me is what I deal with at the time. I never go back to photograph what I experienced the day before. Each experience is unique and presents a landscape and moment that will not be possible at another time.

My connection with photography started when I was still young. The memory of this introduction to photography relates to my dad enthusiastically framing our family history with different camera technologies over this period. I unintentionally took over this function to explore my world photographically. My formal photography education took place in the pre-digital era of photography and consisted of many technical and chemical processes that constantly required the photographer's input. If consistent results were the objective, they were not compromised by the analogue process. However, the analogue process was characterised by film batch inconsistency, chemical batch differences, temperature changes and human error, all of which relied on the tacit knowledge that the practitioner accumulated over time.

Tacit knowledge became a database of experience that could assist the decision-making process in real-time. The complete process was reflective from image conception to the final print. The effort that this process required to deliver technically acceptable images was all-consuming for the young photographer and often resulted in visually uninteresting images that were technically well executed. While I appreciate the master-apprentice type education I received, I also found that its authoritative nature could impede personal exploration. Reflecting on my career as a photography teacher, I recognised how my personal growth experiences influenced my approach to teaching as a

photographer. After my formal education, it took me many years to develop a satisfying personal approach to photography. I was teaching photography during this time of exploration and I believe my journey in my photography influenced the way I approached my teaching.

For me, teaching photography is imbued with a similar perspective. There is, I believe, a delicate balance between taking many photographs to develop a vision and taking fewer with proper planning and intent. In my view, and as articulated by Alvesson and Sköldberg (2007), practising photography cannot be replaced by anything non-practice related. It is a vocation.

As a photography teacher, I became attracted to my immediate teaching and learning environment. My perception of this specific learning place, within the educational space, is likened to an artefact: the human-created place. The created place subsequently dissolved into a perceived natural, untouched space that Hilpinen refers to as a "naturefact" (Hilpinen, 2011, p. 3). Oswalt (1973) describes the naturefact as "[o]bjects extracted from their natural setting and subsequently used without modification" (p. 14). For Hilpinen (2011), "a naturefact is modified to improve its usability for some purpose, (...) becom[ing] an artefact" (p. 3). Cresswell (2009) describes locale within place as "the material setting for social relations" (p. 1) and place as "heavily dependent on practice" (p. 2). There exists, then, a practical space where this research is taking place. The data collection process in this research aims to elicit factors that could influence the teaching and learning approach specific to this research. These factors create a pedagogic space that implies a teaching and learning approach.

This enquiry is situated in HE, specifically photography education and more precisely, the teaching and learning of photography as a professional practice. To get "in-place", one must journey towards a considered destination. Cresswell (2009, p. 4), relates "space" [educational world] to the "allowing of movement", whereas "place" [photography education within the world of education], relates to that which allows for a "pause". He further states that "each pause in movement makes it possible for location to be transformed into place" (p. 4). I would therefore suggest that a critical pause is needed within the photography-education space and must be transformed into a photography practice space.

This study is located within a formal photography setting where I endeavour to elicit a deeper understanding of the approach to teaching photography knowledge. My photography context consists of my photography experiences before, during, and after formal photography education. I, therefore, had photography practice knowledge prior to photography education, and I gained more photography knowledge after formal photography education. The method of abductive reasoning characterises the ways of understanding by identifying underlying patterns of theoretical conceptions (Alvesson & Sköldberg, 2007, pp. 4-5).

According to May and Perry (2017), the process of research is a "search for certainty", which I pursued by interpretation and analysis of empirical data in a reflexive manner (Alvesson & Sköldberg, 2007). The reflexive process ensured awareness of myself as the researcher, the research participants, the ways of understanding photography as a practice, the HE educational context, its "intellectual and cultural traditions, ... [and] the problematic nature of language and narrative" of the research process (Alvesson & Sköldberg, 2007, p. 11). May and Perry (2017) caution social scientists to be reflexively watchful "over the construction of meanings and their own being in the world... and the relationship between thought and practice".

3.3 Epistemological space in which the data will be collected

The epistemological space explored in this research is photography practice, while the knowledge space of concern refers mainly to the individual practitioner and can be described as *a creative practitioner*, *photographer*, *craftsman*, *artisan*, and *master*. Markie (2015) argues for "three defining" epistemological questions:

1. What is the nature of propositional knowledge, the knowledge that a particular proposition about the world is true?

2. How can we gain knowledge?

3. What are the limits of our knowledge? (p. 1).

The research question required information residing within the participants, therefore the inquiry was categorised as intuitive instead of deductive or "the Intuition/Deduction Thesis", according to Markie (2015, p. 3). Apart from the *a priori* inductive nature of rationalism that gains knowledge "independently of sense experience", Markie (2015) ascribes a further two characteristics to rationalist research thinking. These include "the Innate Knowledge Thesis" that ascribes "knowledge of some truths in a particular subject area", and "the Innate Concept Thesis" denoting "concepts we employ in a particular subject area (…) as part of our rational [thinking] nature" (pp. 4-5).

I was not searching for truth or valid statements in this epistemic space, but rather to find "useful interpretations" (Crotty, 2012, p. 47). A key point in this research was that knowledge needed to "emerge" (Crotty, 2012, p. 48) from my interaction with the participants.

The epistemic space that I identified to research is that of the craftsman-Being, in relation to which Descartes observed that,

> "[a]rtisans (…) engage in deliberate operations, and are used to fixing their eyes on a single point, acquire through practice the ability to make perfect distinctions between things, however minute and delicate" (Gauvin, 2008, p. 127).

No wonder the humanists of the Renaissance period "urged natural philosophers to enter the craftsman's" workshops and study the practice of their trade" (p. 128).

When Descartes noted how a blacksmith starts with nothing, but then firstly construct the tools that he will need for his work (Gauvin, 2008, p. 130); for me, this denotes the importance of personalised "forging" by the craftsman, "mentally forg[ing]" "order" towards a "logic practice" (p. 132). Descartes observed weavers (p. 141) and musicians that became as one with their tools. He also noticed that their "bodily disposition", which "produc[ed] specific knowledge" (p. 134), moved beyond "bodily dispositions of *habitus*, beyond the uniqueness of artisanal techniques to where we find a structured discipline leading to the one and same internal logic of practice" (p. 135).

Adorno (1977, p. 131) refers to "exact fantasy", where Crotty calls for creativity and imagination that is needed in order "to know", to "be sure". Descartes further distinguishes between the artisan and artist, looking at the "Grand Art" as alchemy, or a "false science", which does not produce an "orderly soul" (Gauvin, 2008, p. 135). This research sought out the possibility of teaching and learning about this "orderly soul", that "specific knowledge", an internal "logic of practice", which I believe, unlike Descartes, could also link with an alchemy of unplanned attainment that cannot always be explained.

For Descartes, the ideal craftsman was the ultimate mechanical tool, which made an "epistemic connection (…) between an artificial and natural *organon;* between a mechanical instrument and a bodily organ" (Gauvin, 2008, p. 158). The notion that Descartes perceived the "[t]raining of apprentices (…) not the only task of a master; the transmission of trade values as important" (p. 163) was important for this study. Values and practice, for me, could also imply that the dualism of body and mind that Descartes introduces is intentionality connected to, which, according to Crotty (2012), "brings to the fore the interaction between subject and object" (p. 45). In this stance, objectivity and subjectivity are rejected or replaced by unison, creating a bedding ground where "meaning is born" (p.45).

The body, for Descartes, became the object (Lefebvre, 1991, p. 195). With regard to the issue of what shapes the object, and the object becomes an expression of this shaping, Fish (1990, p. 191), advances that "all objects are made and not found of the same phenomenon". Crotty (2012, p. 48) adds that "the object may be meaningless in itself, but it has a vital part to play in the generation of meaning". Holquist (2002, p. 3) clarifies that "Kant's breakthrough was to insist on the necessary interaction", which for Bakhtin (1984), was a dialogue between the body and the mind. For Kant, thought was a fusion of "sensibility and understanding" as knowledge, imploding the dialectic of "physical sensation" with "concepts of the mind", which according to Holquist (2002, pp. 3-4) enables us to "make [informed] judgements". In my view, the educational tool of dialogic pedagogy could be the invisible extension that Descartes believed it should be.

Crotty refers to the bricoleur as having a "dialogue with materials" and being "preoccupied with objects" (Crotty, 2012, pp. 49-51). If the body then becomes the object-of-making by the subject-mind, which is dialogically informed, through (continuous) craftsman-being, I posit that it becomes a product of value, an artefact of self-Being.

Lefebvre (1991) refers to the "instrument or intermediary" between the body and space (p. 194). For me then, this body-object as object-Being, is shaped in interconnected space-worlds that could reference photography practice, education practice or this research practice. My understanding would postulate that as the photographic tool becomes the intermediary between the photographer and the photographed, a dialogic photography practice pedagogy could fuse craftsmanship values with the practitioner. Similarly, the intentional nature of this research leads my consciousness "into the object" of research, an appropriate research tool, methodology and method, which then could become the intentional ingredient that will lead my consciousness to the participant view (Crotty, 2012, p. 44).

The tools are necessary to shape the object. If the object can be the craftsman person, I would argue that the mind gets shaped by the practice of craftsmen. Geertz (1973, p. 44) posits that we are products of culture and not the result thereof. Therefore, interpreting Geertz, I become a product of the craftsman culture that directs my thoughts and actions. Here, I suggest that craftsman practices fusion; through practice, he /she could provide access to practice for the community of craftsmen, allowing for practitioners to be mutually shaped by fellow practitioners.

The epistemological world of the craftsman centres around the artefact. The craftsman is a craftsman because of the artefact. However, this research is not centred on the artefact as a creative product per se. It is concerned with the idea of a pedagogic map that teachers and students can, through practice, use to navigate to the realisation of individuated artefact outcomes. I posit that this map can be a reflexive space and tool that can facilitate pedagogic navigation.

3.4 The epistemological conception of making

A link between my discussion of practice in the literature review and the context of productivity with the notion of reflexive research is applicable here. The much-discussed distinction between theory and practice is not essential in this context. The Greeks viewed *theoria* "*a priori* reasoning to achieve knowledge of the eternal truths", which had little relevance to "everyday life". However, they were very interested in the philosophical understanding and theorising of their various human actions and reasoning.

Aristotle distinguished between "two forms of human action", "*poiesis* and *praxis"* (Carr, 2006, pp. 425-427; Duvenage, 2015). The table below (Figure 7) delineates my understanding of the differences between these two forms of action.

Human action type	Defined as/ associated with	Form of reasoning (Mode of enquiry)	Philosophical focus
Poiesis	▪ "productive activities that form the basis of economic life" ▪ "making action" ▪ "end is known prior to the practical means taken to achieve it" ▪ "mastery of knowledge" ▪ "methods and skills" ▪ "technical expertise" ▪ production / making and artefact	*Technê*: deductive ▪ "Instrumental means-end"	"Guided by a **productive philosophy**" (Applied Science) ▪ Principles, procedures and operational methods which together constitute the most effective means end for achieving some pre-determined end".
Praxis	▪ "Not produce or make some artefact" ▪ "Progressively realise the idea of the good constitutive of a morally worthwhile form of human life." ▪ Not ethically neutral	▪ *Phronēsis*: ▪ Cannot be learned in isolation from practice ▪ Only acquired by practitioners seeking standards of excellence inherent in their practice	Advanced by a **"practical philosophy"** (Practical Science) ▪ "Action directed towards achieving of some end."

	▪ The good cannot be made, it can only be done ▪ Its "good" end	▪ "Knowledge of its end cannot be theoretically specified in advance" ▪ "Practical manifestation of how the idea of how the idea of the good is understood" ▪ "Knowledge of good is practically expressed through human conduct" (my rewording) **Ethical Reasoning**, "acquiring knowledge of the good and knowing how to apply it "	▪ For Aristotle, "not a method of reasoning, but a moral and intellectual virtue that is inseparable from practice".

Figure 6: Differences between Praxis and Poiesis

Firstly, the creative making, means-end knowledge of *poiesis* enables the craftsman to produce an artefact. Secondly, this research-in-education is an action(research) that enables the researcher to gain knowledge from the act of education. This knowledge does not produce a physical (non-living) artefact; it is ethically sensitive and towards and end that "progressively (…) realises the idea of the "good" constitutive of a morally worthwhile for of human life" (Carr, 2006, p. 426). The emphasis here is not on making-action but "doing"-action (p. 426)

For Carr (2006), it is

> "[i]n *praxis*, acquiring knowledge of what the good is and knowing how to apply it in particular situations are thus not two separate processes but two mutually supportive constitutive elements within a single dialectical process of practical reasoning" (p. 426).

This form of reasoning cannot be learned "in isolation of practice" and was named *Phronesis* by Aristotle (p. 426). This, for Aristotle, was not a "form of reasoning" but a "moral and intellectual virtue that is inseparable from practice" (p. 426). Carr refers to a "productive philosophy" and a "practical philosophy" that guides the two notions of *Poiesis* and *Praxis* knowledge (Carr, 2006, p. 427).

The methodology for this research as a practice philosophy aligns with the philosophical, theoretical underpinning of this research. The teaching and learning process of artisanship values embedded in

creative making is through *phronēsis* reasoning. This philosophical approach referred to the genesis, thereby accessing the historical beginning and processes of various concepts related to this research.

The rational understanding in this research is then not "tradition independent" (Carr, 2006, p. 429), and becomes "effective history" so that, according to Gadamer (2004, p. 250), makes "self-reflective awareness" possible and is known as "effective historical consciousness". Carr (2006, p. 429) states "just as reason can only be sustained from within a tradition, so a tradition can only be sustained through the active use of reason".

According to Gadamer (1981) effective historical consciousness is attained by a dialogic interaction between participants and not by method or technique. According to Gadamer, an understanding of what social science is, is also dialogical. Carr elaborates,

> "[W]e then also begin to recognise is how, in the culture of modernity, the Aristotelian notion of phronesis has been rendered obsolete, dialogue has been replaced by technical expertise and historical consciousness has been supplanted by a rigid conformity to methodological rules." (2006, p. 431).

Conformity to the rules of methodology seems to hinder access to the knowledge that practitioners seek. This knowledge should improve practice and this can be done by developing *praxis* through its "historical and cultural embeddedness" (Carr, 2006, p. 433). In this research, I have attempted to "nurture the kind of dialogical communities within which *phronesis* can be embedded" (p. 433). My dialogical community consists of the historical traces of artisanship practice and the pedagogical conceptual links that promote craftsman-valued teaching and learning. The teaching and learning within my specific teaching and learning environment need to be interrogated as an extension of my dialogic research community.

Reflexive research by nature is participatory. José Ortega y Gasset (c. 1883), a Spanish philosopher, emphasised the "existential concept of experience", or *vivencia*, translated as an "authentic commitment" at the centre of participatory involvement (Fals-Borda & Rahman, 1991, p. 4). I view

authentic commitment as a core process of this research, which includes craftsmanship values and pedagogy.

3.4.1   The issue of values

Greenbank (2003, p. 791) refers to Rokeach (1973), who argued that values as "preferred modes of conduct", are known as "instrumental values", which consist of "moral values (...) and competency values."

As an interpretivist researcher, I acknowledge my value system's influence on this research. My value stance was made clear in the research title, which points to an outcome that may subscribe to a particular value system. However, I did expect the chosen reflexive methodology for this research to challenge my value system throughout the research process. My instrumental values as moral values, or "the right thing to do" and competency values, which implies my belief in "the most effective way to go about something", would come under scrutiny (p. 791).

Gabriel (2018, p. 145) indicates that a researcher's "previous experiences" and "self-knowledge" can be "valuable resources, enhancing their engagement with their empirical material and deepening their understanding of its meaning and significance".

As mentioned, this research is associated with a particular value preference through its title. I anticipated that this value preference or suggestion, would be interrogated throughout the research process.

3.5   Research orientation

Qualitative studies are often questioned for their lack of rigour and the subjective nature of the approach. Gabriel (2018) posits that it is for this reason that a process of self-questioning in the form of reflexivity is becoming more frequently utilised.

This research was holistically situated within the domain of praxis (practical knowledge) (Feenberg, 2010) of creative media practice and located within "the research traditions and paradigms of the social sciences" (Usher & Scott, 1996, p. 176). A further refinement in the research approach was employed and may be articulated according to Elliot" s differentiation between "educational research" and "research in education" (Elliot, 2006, p.170). This research is "in education" and aligned with the notion of insider research, where I am also a member (Green, 2014). However, the research was not ethnographically embedded, but educationally connected in practitioner association. The notion of reflexivity as an approach is used to navigate the influencers. I am interested in value-laden human behaviour in creative practice activity in a specific educational setting (Punch, 2009).

To put it another way, my research may be situated within the second person category, where my own life is not being researched in isolation. Instead, on a face-to-face basis, the practice-lives of others are researched through the mutual concern of creative photographic practice and teaching. However, the reflexive nature of the research enables me as a practitioner, to reflect on other practitioners, which become a mirror of practice. In conventional autoethnographic research, the "image that states back from the mirror" (Gabriel, 2018) becomes a mirror of practice in a world of practitioners. The research is then tinged by my life and deep interests in craftsmanship values within the teaching and learning of photography. As a practitioner-educator within the same photography course, I am joined with the research. In that way, then, there would be a conceptual first-person link to my views on the issues that relate to the research.

Noffke (1997) outlined three motivations that inspire teachers who researched their practices. As stated before, although this research is not specifically an investigation of my teaching, it is directly related to my teaching environment and linked to my teaching over the past thirty years. Noffke's suggested motivation for researching your immediate practice is to improve "self-knowledge" (p. 334), the production of knowledge for "staff development" (p. 333), and as an emancipatory tool to empower students. I believe the pedagogic orientation of this reflexive research incorporates Noffke's suggested research motivations.

The literature studied in my research does not use external research related to photography practice pedagogy. I could not source similar research studies. Instead, this research investigated historical and ontological perspectives and educational principles that apply to practice and that related specifically to photographic practice. I identified core concepts associated with teaching and learning (pedagogy), practice knowledge (practice epistemology) and approaches to making creative artefacts with care (craftsmanship). Reflection, in this research, took place between these theoretical notions that I identified as important influencers to understand photography and the specific teaching environment in which the research was situated. The reflective understandings of the mentioned theoretical components set the scene for reflexive interpretation of the empirical research. The research process employed reflective stages related to the literature review, methodology data collection and analysis as well as the discussion, in a transparent dialogic manner that allowed for forward and backward observation.

The concept of an array speaks of multiple entities that together influence perception: visual perception in the case of a photographer and in my case as the researcher, a knowledge perception. The researcher is also immersed within a world of presented information. In line with Gibson's earlier argument, I would postulate that an ambient array informed my research world in the same way that the photographers' world is informed by interconnected factors that bring to bear the complete environment practice experience in which the practitioner functions.

Reception, in this research context, constitutes reflection. Alvesson and Sköldberg identify the basic characteristics of reflective research as "careful interpretation and reflection" (2007, p. 11). Reception and interpretation of the structured array of information transmitted require "construction of meaning" (Littlejohn & Foss, 2004, p. 44) by the mind so that we can intelligibly comprehend and connect with what was observed. Then, in the pattern of Humphrey's (1993, p. 17) explanation, one must be present to have a "representation by a mind" of the phenomena. Researching value perceptions of participants

would then require me to be physically present, not just objectively observing, but actively engaging their thinking for clarity on the research question.

Meaning, in this research, is not purely objectivist, discovering the "meaningful reality" (Littlejohn & Foss, 2004, p. 8), or subjectivist, "meanings (…) imposed on reality" (p. 43). Meaning is then not "created" (p. 44) but "constructed" (p. 9) from an array of what I "have to work with" (p. 44). The array in this research consisted of participants' opinions that I as the researcher interpreted in dialogue with found literature and experience as a teacher in this field. The subjective and objective action merges through constructionism (p. 44) towards reflection (Alvesson & Sköldberg, 2007). According to Crotty (2004, p. 43), constructionism posits that human beings construct meanings as they "engage with the world they are interpreting".

A constructivist character is present in the research. Crotty (2004) describes this construction process as the convergence of subjectivity and objectivity through the "concept of intentionality" (p. 44). In this instance, intentionality does not denote "purpose or deliberation" (p. 44). However, it refers to "moving towards" or "directing oneself to", which is derived from the root stem in Latin, "tendere, which means to tend" (Littlejohn & Foss, 2004, p. 44). Crotty further clarifies that:

> "[w]hen the mind becomes conscious of something when it "knows" something, it reaches out to, and into, that object. (…) intentionality posits a quite intimate and very active relationship between the conscious subject and the object of the subject's consciousness. Consciousness is directed towards the object; the object is shaped by consciousness."

Furthermore, he states that "[w]hat intentionality brings to the fore is an interaction between subject and object", and that "[it] is in and out of this interplay that meaning is born" (Littlejohn & Foss, 2004, p. 45) from a "consciousness of objects" (Wheeler, 2013, p. 7). Intentionality for Cresswell (1996, p. 7) describes the "aboutness" "that refers to a relation between consciousness and the world and a process that is "bodily and habitual".

Institutionalisation is also a construction by society, which, in the context of this research, refers to an educational setting, the way practice is conceived (craftsmanship) and the approach to education.

Alvesson and Sköldberg (2007, p. 32) refer to similar concepts as typification because of institutionalism. All forms of typification should be challenged, I believe, because they can confine us to a singular point of view, which will inhibit reflexivity.

In the context of creative practice education, Bourdieu's world of habitus refers to the "socialised body" as cultured beings that Crotty describes as being "the source" of "human thought and behaviour" (Littlejohn & Foss, 2004, p. 53) and that "the very existence of social phenomena stems from human action" (p. 55). Culture, Crotty posits, "has to do with functioning", and without it "we would not function" (p. 53).

My perception of the practice world is of a "world [not] always already there" (Littlejohn & Foss, 2004, p. 10), but as constructed by a society of like-minded makers. As described by Crotty, the notion of intentionality is essential in this context. In this research I have interpreted intentionality as "consciousness drawing on one another's 'making desire', thereby forming a community of consciousness", drawing on one another's knowing. Sennett (2008) describes the craftsman home as a "sacred", a "spiritual home on earth" (p. 56). The inner motivations of early medieval craftsmen were guided by their faith, which in the context of this research, highlights an inner spiritual likeness and bond between individual practitioners.

However, inner convictions in a reflexive research orientation constitute one of many knowledge perspectives that together can provide a considered and more balanced knowledge perspective (Alvesson & Sköldberg, 2007). Steedman (1991, p. 54) posits that no single meaning perspective stands alone but is "produced in acts of interpretations".

3.6   Reflexivity as a methodological approach for this research

Alvesson and Sköldberg (2007, p. 326) describe reflection as "thinking about the conditions for what one is doing, [and] we try to ponder upon the premises of our thoughts, out observations and our language". In an interpretive research setting, Gabriel (2018) observes that the interpretation can never

be final or complete and says that as a "difficult art", it needs "patience, sensitivity and imagination" (p. 142). Interpretation, principally, comes from the hermeneutic circle where the researcher will move between parts and the whole research to explain the data (p. 141). Gabriel refers to this process of fitting different elements together as a "meta-story which leaves no loose ends or unanswered questions" (p. 141). For me, photography pedagogy developed into a mega-story with many loose ends embedded in my personal experience with the medium over many years and value attachments that I have made in that time.

The concept of reflexivity acknowledges that the researcher's values, experiences, and motives are not separable from the research project. Gabriel (2018, p. 145) explains that the researcher-related attributes, such as emotions and empathy, are valuable resources to explore understanding, meaning and significance. Reflection, or reflective practice, as Schön formulated it, is often interchanged with the notion of reflexivity (p. 146), which is recursive and becomes a process of co-creation between the researcher and the research. Gabriel refers to this process as "I create myself as a researcher" (p. 146), in which the researcher does not want to be neutral (p. 147).

Alvesson and Sköldberg (2007, p. 326) refer to this process of knowledge creation as a social construction process where no specific part of the process dominates and of which the researcher is a member. Being a member requires that I challenge my conceptions of photography as a medium and how I think it should be taught in HE. Alvesson and Sköldberg suggest that the essence of reflexivity "is the ability to break away from a frame of reference and to look at what it is *not* capable of saying" (p. 327).

In this process of finding certainty, I need to be aware of listening to a preferred theoretical voice. The lack of a singular abstract framework that can promote a privileged understanding, in this study, is replaced by a reflexive metatheory, which, according to Alvesson and Sköldberg, moves the attention away from one idea of reflection (Alvesson & Sköldberg, 2007, p. 328). The concept of a metatheory is not a specific philosophical position but a framework that allows for movement between different

dimensions of reflection. Alvesson and Sköldberg refer to this conception of metatheory as no theory, which they call "reflexive interpretation".

The holistic nature of a reflexive research context requires broad links to "everyday theorising" in the social sciences, which makes reflexivity "a feature of life itself" (May & Perry, 2017). In a research sense, an understanding of photography is then influenced by its everyday practice in the broader society, even though the research does not directly elicit this broader opinion. The principle of reflexivity is not to narrow "horizons" but broaden them from an interpersonal dialogical component into the political, historical, and broader social interactions (Alvesson & Sköldberg, 2007, p. 327).

Alvesson and Sköldberg (2007, p. 11) highlight "careful interpretation and reflection" as their two primary characteristics of reflective research. They state that because empirical data sources, such as interviews that will be used in this research, are a result of interpretation and "come to the forefront of the research work". Therefore, the researcher must be critically aware of "theoretical assumptions, the importance of language and preunderstanding" (2018, p. 11). Reflection, for Alvesson and Sköldberg, is the "inward" attention to the researcher self (2018, p. 11) and "is defined as interpretation of interpretation", or a "critical self-exploration of one's own [research related] interpretations. This form of "critical reflection" (Alvesson & Sköldberg, 2007, p. 12).

Norton (2009, p. 58) encourages university academics,

> "who are keen to improve the student learning experience to research the many initiatives, trends and policies related to teaching and learning that are so often imposed from a top-down managerial perspective".

The original South African notion of the pedagogic characterises leading the student into their understanding contrasts a Prussian originated pedagogical and educational practice typified by instructionism. The pedagogic leading and exploration character combined with a desire to search for personal knowledge creates an environment for questioning the institutional setting, the self as teacher or student, and the broader context of the 'why' of education.

3.7   Reflexive interpretation as an approach for this research

Alvesson and Sköldberg (2007) identified several interpretive research strategies ranging from empirical, hermeneutic, ideological, and postmodern as examples of scholarly sources that can be used in research. According to Alvesson and Sköldberg's model, reflection happens across the identified levels of interpretation. The application of their model as a guideline can be applied across any interpretive level that the researcher determines (Alvesson & Sköldberg, 2007).

The reflexive metatheory mentioned earlier create movement between different theoretical perspectives and empirical aspects of the research (Alvesson & Sköldberg, 2007, p. 328). Interpretive perspectives in this research are eclectic with a strong element of empirical constructivism, interpretivism, critical theory on HE, and some postmodernist thought. The thesis exploration includes ontological views of photography, the notion of practice and making in relationship to craft and craftsmanship, pedagogical perspectives, and its relation to photography practice, HE perspectives and myself as researcher, photographer, and teacher.

Interpretation in this research will happen on two fronts: the thesis as a body of knowledge layers and the data elicitation and analysis process as the thesis research. The thesis as a body of intellectual engagement is grouped into chapters that speak to the same research question. The research question scans the intellectual engagement constantly for factors that can influence the teaching and learning of photography practice. The pre-determined intellectual engagement categories that this study relies on are grouped around knowledge areas that I identified. I identified these areas of intellectual engagement based on my experience as a teacher of photography at HE for three decades as well as pre-reading towards the study.

The broad theoretical engagement was identified as conceptual thinking related to what photography is and how photography can be realised conceptually and in practice towards a profession. These broad areas of knowledge are supported by multiple branches of knowledge that construct understanding upwards. The reflexive methodological approach allows me to freely move between concepts, challenge

my conceptual understanding of the problem under investigation. This understanding led to a strategy for data collection and analysis.

Alvesson and Sköldberg (2007, p. 329) indicate that the word "reflexive" has a dual meaning. Firstly, they posit that it "refers to ways of seeing that reflect existing ways of seeing" or focussed reflections upon a specific method or level of interpretation. Secondly, "levels are reflected in one another", or "multidimensional and interactive nature". Reflexivity arises when different elements are played off against each other, and they posit that a dominant level can "contain reflections of other levels".

The model of reflexivity that I propose for this research express three attributes that I prioritise. Figure 7 below illustrates a model of reflexivity in the thesis application.

From the literature it is evident that the research process takes on a cyclical approach by nature. There is a natural tendency to go back and forth between processes as the research develops. Formal methodologies such as Action Research are successfully applied in this manner when interventions are implemented in a process of improvement. A cyclical approach to this research ascribes more to a Hermeneutic cycle that seeks understanding through a process of interpretation.

Cycles in this research are also between research components (Literature Review, Methodology, Coding, Analysis and Discussion and the Conclusion). Cycles also represent cyclical thinking, doing, and writing within these individual components. Further and smaller cycles of thinking and writing also happened within smaller ideas that were interrogated. Alvesson and Sköldberg (2007, p. 393) suggest dividing the "research project into different phases with respect to reflecting elements" that will result in a series of "interpretations at deeper levels".

In Figure 7 below, I illustrate a proposed notion of reflexive semi-transparency that is used in this research. Reflective moments in this research do not represent planning, action, observing and reflection as isolated events. I will refer to these moments as reflective moments of pause. Reflective

moments in this context are not a complete pause but a moment in the research activity. These active, reflective moments provide a perspective view of other research aspects while research progresses.
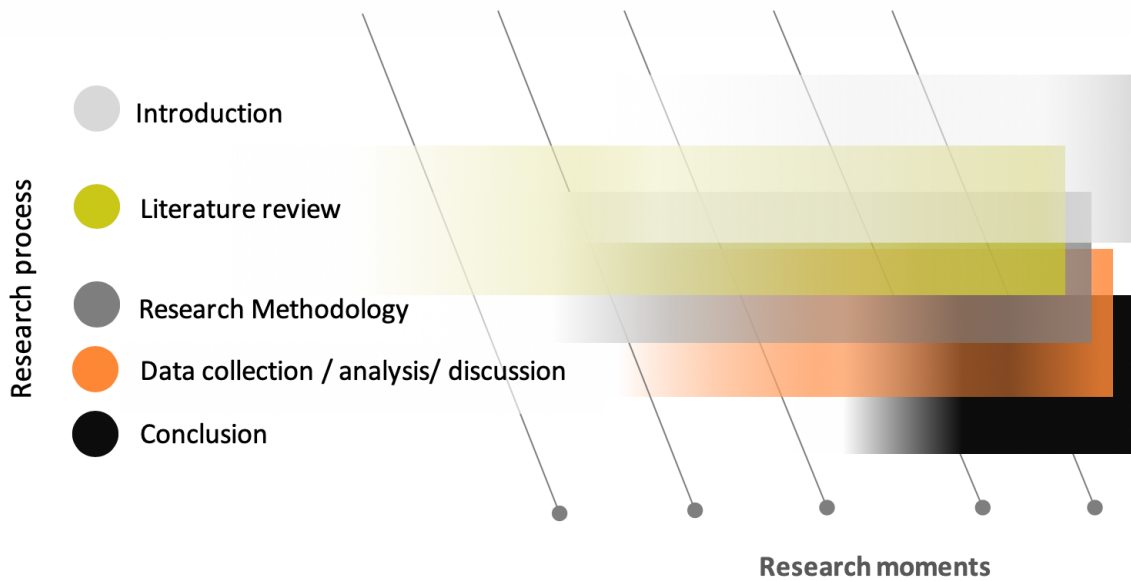
Figure 7: Transparent, concurrent, and interacting phases of the research process

Figure 7 above represents multiple semi-transparent layers of the research process. The illustration must be imagined as a three-dimensional expression of the components of the research process. The thesis embodies the research process as layers (components) of this research and include the Literature Review, Methodology, Data Collection (and Coding), Analysis, Discussion, and Conclusion. This illustration presents a different view of the research process that is found in a Gannt chart (Figure 28) in the coding chapter. The Gannt chart in the coding chapter illustrates a focussed time that was allocated to each component. Figure 7 illustrates the reality of engaging with the different components from conception to completion. There is a stage in the research process, towards the end, where the different components developed simultaneously. Figure 7 also illustrates a time at the end of the research where the Introduction and Conclusion were finalised when work on the rest of the components ended. This level of detail is not included in the Gannt chart in the coding chapter.

I envisage the reflective moment as a pause to focus within a layer, for instance the Literature Review. The pause allows for component focus, as well as reflection on other components (layers). The reflective moment is then not cyclical between the components in a linear and isolated manner. The moments

provide a pause within a layer to reflect on progress in relation to other layers, and through its semi-transparent quality, becomes reflexive. I would suggest that gaps in layers could be more noticeable when the reflection is considered in association with other layers. I would suggest that the immersive and transparent nature of the model allows for a response that draws on the research, resulting in reflexivity.

I imagined these layer-processes as simultaneous but not necessarily starting at the same time. Planning might only start after a reflection through the reading phase. The process is then fluid while kept in motion by the researcher. Events such as interview schedules are researcher-initiated events that have momentum of their own, once activated. I would suggest that the participatory nature of the particular research event can influence the required action during the research process. In this way, primary data might necessitate the additional probing of literature.

Interpretation during the thesis process ensures reflexive cohesion in the thesis itself. A deeper reflexive process engages when the data is analysed. This analysis process comprises of a few iterations. The first iteration can be referred to as Alvesson and Sköldberg's (2018, p. 330) notion of "low-abstract interpretations" and takes place in the coding and categorisation phase. A further level of interpretation takes place when theoretical perspectives inform interpretation in the theming and analysis phase. A final level of interpretation takes place when findings are distilled from previous layers of analysis towards a proposed pedagogic outcome.

Understanding from the primary data source for this research is key to answering the research question which asked:

> "Which important factors can be identified as influencers to the approaches and methods of photography practice education?"

3.7.1   Research question development process

Adu (2016) makes an interesting connection between the code choices and the type of research being conducted. He suggests the following thinking structure that will identify the research question character. This structure then guides the choices in the analysis of data. In Fig 8 below, Adu graphically illustrates the thinking structure resulting from the research question orientation.
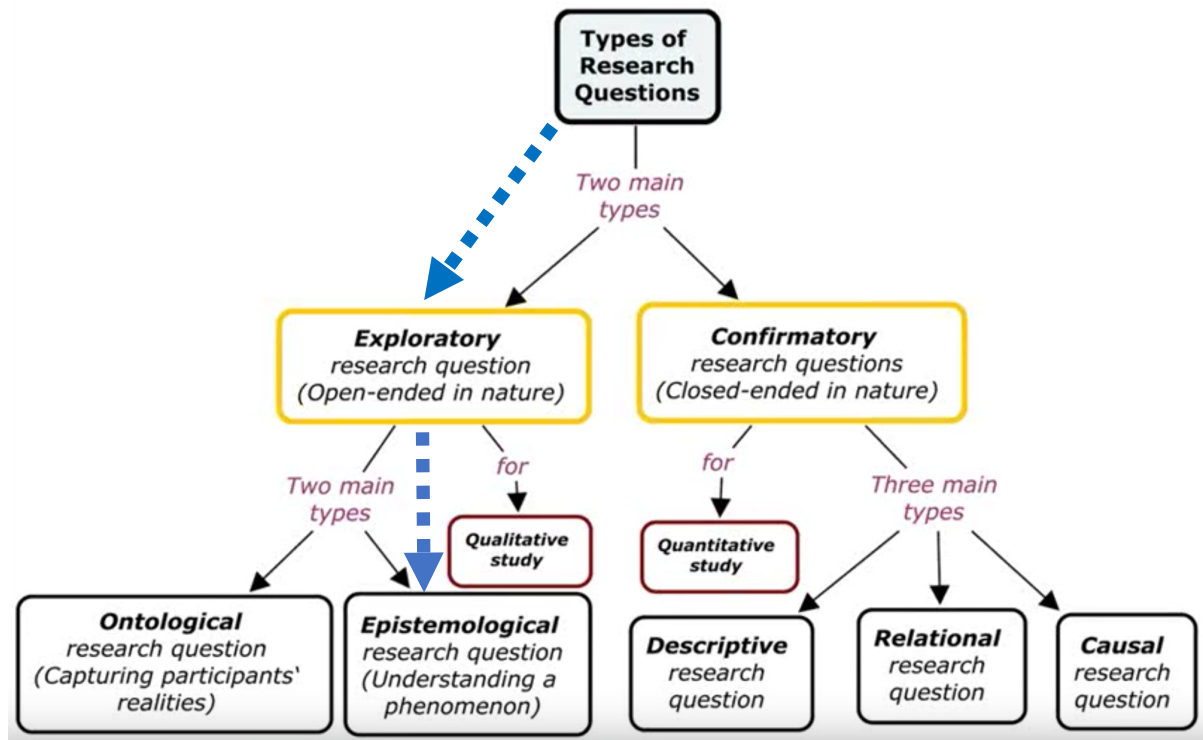
Figure 8: Adu's research question identifying structure (adapted from Adu, 2016).

I positioned my research type as an exploratory qualitative study in the figure above. Adu follows traditional conventions in the demarcation of ontological and epistemological research questions. This research asks the following question:

> "Which important factors can be identified as influencers to the approaches and methods of a specific photography practice education?"

The research question does not address a gap in a particular literature set. It can be argued that there are gaps, but the existing literature on pedagogy and its iterations that it mainly discusses constitute a theoretically biased learning environment. Understanding where the notion of pedagogy comes from was more valuable than its developments after that and its current interpretations. The disregard for

practice as knowledge is evident in its overly theoretical justification. From a practitioner's perspective, it is clear that practice knowledge is rewardingly mysterious, illuminatingly gratifying, yet difficult to articulate. The problem for me as an educator is straightforward: how do we teach photography practice? After three decades of teaching photography, I am challenging theoretical conceptions, opinions, practitioners, educators, and myself to search for factors that can contribute to the understanding of a photography practice pedagogy. Locating myself within the possible research problem aligns with the notion of "reflexive problematisation" which Alvesson and Sköldberg (2007, p. 383) promote .

In this question, the notion of factors encapsulates anything that could impact the pedagogical process of the photography programme in which I work. The interview strategy would then elicit responses from participants through semi-structured questioning. In the questions posed, participants will not mention the word "factors". I intended to elicit responses from questions directed at teaching and learning photography and photography practice in general, without the participant having to think about specific factors. I attempted to identify these factors as interwoven and rich personal reflections embedded within the individual response. Furthermore, I intended to promote dialogue, sometimes challenging responses, to discern the difference between deep personal or surface responses. The questioning was done in a considered manner that respected the compliance of interview candidates to participate.

Several interlinked factors related to this research make a reflexive approach to the research suitable. The notion of ambiguity surfaced in every interlinked concept related to answering the research question. Concepts that are related to this research include

- photography, is it an idea and a technology
- pedagogy, as an educational idea and how it relates to creative practice education
- craftsmanship as an approach to making, and
- productivity and its relation, and possible preferences to an approach to photography practice education.

Photography as an idea had to be explored ontologically to appreciate a deeper understanding of the concept related to this research. The ontological exploration revealed historical conceptions, technological origins and understandings, and artistic and productive outcomes that connect to the understanding of what creates the disciplinary context for its educational undertaking.

The HE setting for this study is specific but has a history with links to institutional variance and interpretations. The notion of pedagogy, which is the main thrust of this research, has historical origins in child education that evolved into various educational understandings specific to age-related groupings. Creative practice pedagogy was an outflow of the broader pedagogic understanding, but not specific enough to illuminate a practice pedagogic understanding with creative associations.

Craftsmanship, as a historical notion that describes exceptional making standards, can be associated with photography, which, like other productive and creative undertakings, pursue methods of practice that transcend mediocrity. The idea of a master-apprentice is also relevant in an occupation, such as photography, where the aspirant professional relates to the concept of a guide, mentor, or master practitioner from which they can learn in practice. In a field such as photography, the association with the professional is normally a crucial step that assists the aspirant photographer to survive in the professional world. Historical perspectives on craftsmanship were essential to establish core ideas that impact the understanding of this notion in photography education.

The related concepts mentioned above resulted in multiple and complex research questions and sub-questions during the pilot study. The vast scope and range of the proposed questions complicated the research beyond the scope of a doctoral study such as this. After much reflection on the intent of this study and the research questions that would operationalise it, it was decided to reduce the scope of the questions to a core principle that could guide this research.

All of the mentioned concepts and related sub-concepts were regarded as factors that could influence an approach to teaching photography practice. It was envisaged that a reflective/reflexive process could facilitate the research results if an unambiguous question guides the process.

The result of this reflective process was a condensed, clear, and singular question which could guide the research and resulted from a "dialectical interrogation of [my] own familiar position, other stances, and the domain of literature targeted for assumption challenging" (Alvesson & Sköldberg, 2007, p. 384). The resulting question is,

> "Which important factors can be identified as influencers to the approaches and methods of photography practice education?"

The research question encapsulates the following aspects:

- The pedagogic notion is questioned through its interpretive explication as approaches and methods in the research question. Pedagogy as an educational conception is probed through its historical conception and relation to HE and photography practice education specifically.
- Photography is specified as a practice and educational field within the question.
  - The notion of practice is related to making as a process, which, in the context of the title of the research, leads to a conceptual understanding of craftsmanship and its possible relation to the way this practice is learned. The craftsman apprentice idea is associated with the notion of the pedagogue, which also fulfils an educational leadership role.
  - Photography as a craft knowledge is explored through a historical and epistemological overview. The notion of making as knowledge and this relationship to creative making education is probed.
  - As a photographer practitioner and teacher within a photography programme, I am associated with the teaching and learning of a photography programme in a specific HE setting. As a teacher, I am then linked to the notion of teaching photography as a creative and commercial craft. At the time of this research, I was the coordinator of the

photography programme in the institution where this research was done. My research

perspective was not that of a photography practice teacher necessarily, but an overseer

and participant in the orientation of the practice teaching in the section.

The research question is then asked from a personal teacher participant, of teacher and student

participants within the photography programme.

3.8   Understanding interviews as data in this research

Interview data is the primary source of data in this research; the interview as an appropriate method

will be discussed in detail in this section. Individual students, teachers and professional photography

media practitioners identify important factors as influences on the approaches and methods of this

creative practice education. The interview as the method was tested in a pilot study prior to the main

study. A semi-structured interview was the best way to derive the information I was interested in.

Interviews with students, teachers, and professional practitioner participants, in a reflexive manner,

should promote the clarification of practitioner values in, on and through the process of action.

Interview participants included practitioners that played an important role in photography practice

pedagogy. These participants included the prospective practitioner, the student, the teacher

practitioner and the professional practitioner that can be seen as a product of the photography practice

pedagogy.

The semi-structured interview will be the primary source of data to analyse in this research. Punch

(2009, pp. 147-148) describes the open-ended and in-depth interview as:

> "a way of understanding the complex behaviours of people without imposing any a priori
> categorisation which might limit the field of inquiry" and "it is also used to explore people's
> interpretations and meanings of events and situations, and their symbolic and cultural
> significance".

Practical considerations are crucial for the in-depth interviews and Creswell suggests the "the

researcher needs individuals who are not hesitant to speak and share ideas" (2007, p. 133). Other

practical considerations from Creswell (2007) include an appropriate setting, adequate recording procedures, interview protocol, refining of interview questions, completing the interview on time. Punch advises that the type of interview should be appropriate for the "research strategy, paradigm" and "questions for the study" (2009, p. 149) and points out these "main issues" of concern when doing an interview:

Main Issues (Punch, 2009, p. 150)	My research context
Who will be interviewed and why?	**First year, second year and third year photography students** To elicit a student perspective, in various phases of photographic education maturity, on factors that possibly impact their practical photography education. **Photography teachers** To elicit teacher perspectives on the factors that possibly impact on the practical photography education. **Industry professionals** To elicit professionals" perspective on possible factors that could impact on the teaching and learning of practical photography.
How many will be interviewed, and how many times will each person be interviewed?	**Students** Four students per year group will be interviewed. The iterations depend on data saturation. **Staff** A staff member from each year-group that teaches practical photography education. One iteration should be enough, but additional interviews will be done if required. **Industry** A maximum of four and a minimum of two industry professionals will be interviewed. One interview should suffice for this research.
When and for how long will each respondent be interviewed?	Interviews sessions will be set for forty to sixty minutes, dependent on the quality of data retrieved.
How will access to the interview situation be organised?	Participant information sheets and consent forms are distributed before the interview date. The interview date is agreed upon between the researcher and the participant.

Figure 9: Punch's main concerns when doing an interview compared to this research.

I decided to only interview students from the undergraduate programme in photography. The focus suggests that students are under an umbrella pedagogic objective, which could provide adequate focus for this research. The four staff members that participated were all involved with teaching this

programme. The teachers did not teach on all levels of the course. Two staff members taught more than one subject on a particular level. The other two staff members taught on more than one level of the course. The teacher participants have all had between ten and twenty years of experience; the teachers were educated in similar photography courses at similar vocationally oriented institutions. All the teachers are active practitioners, either in industry related worked or personal work; they were involved with post graduate studies in photography.

The student participants represented the first, second and third year cohorts. I chose participants that were interested and passionate about becoming professional photographers. More students than the required four made themselves available for the possible participation. I conducted an induction session with interested students and allowed them to decide amongst themselves who the four representatives per level would be. The research was not interested in achievement, race or gender, allowing any volunteer as participant in the research process. More detail on participant engagement is available in Annexure 1, Participant information sheet.

3.9   The nature of the data in this research

In a research context, such as this one, data is the "raw material" (Walliman, 2006, p. 50) and is not absolute in nature. Walliman (2006) describes it as "ephemeral" and "elusive" (p. 50) because of changing conditions in the world, and, in relation to this research, associated with participant opinions at a specific point in time. Data, according to Walliman, can also be corrupted. The result of such corruption could be "inappropriate claims" because of the distance between the researcher and the data. Additionally, an effect of researcher awareness of data corruption results in researcher "humility". Researchers then resort to "soft statements" such as "it seems that", "it is likely that", "one is led to believe that" (p. 51).

The distance between the researcher and the data can decrease when the data is collected specifically for the research purposes. This form of research data is then referred to as primary data. Walliman (2006) states that it "is as near to the truth that we can get about things and events" (p. 51). The

emphasis on the individual in this research, as the source for data primacy, categorises the search, in this research orientation, as "idiographic" ("knowledge of specific events" (Holquist, 2002, p. 84)) to extract *"Verstehen"* (understanding) (Crotty, 2012, pp. 67-68). As researcher in this research setting, seeking interpretive understanding, I extended the insider status of being part of the department and course under study, to that of "research instrument" (Cohen, et al., 2007, p. 422, McCracken, 1988, pp. 18-20, Wellington, 2000, p. 28-30). As a research instrument, I don't take (*capta*) but elicit data (*given*) (Laing, 1967, pp. 52-53) that is "constructed between participants" (Cohen, et al., 2007, p. 409)

Outsider	⟵			⟶	Insider
Detached as observer	Observer	Observer as participant	Participant (as observer)		Complete Participant
	⟶	Myself as research instrument			
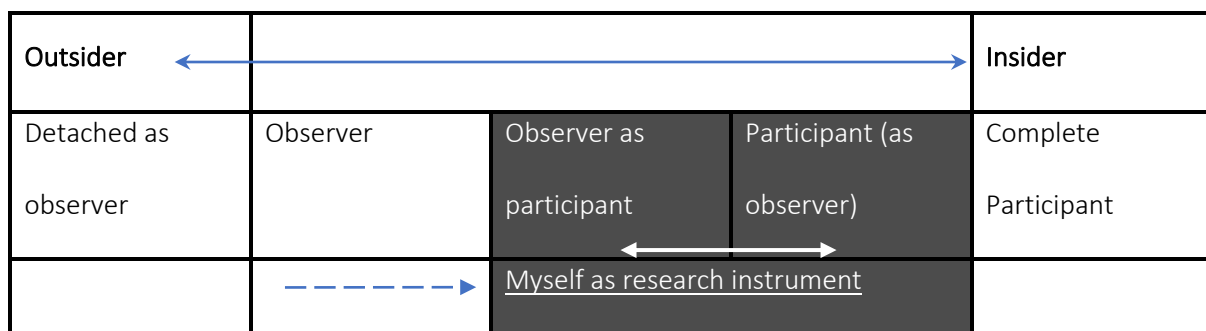
Figure 10: Insider outsider perspective (adapted from Cohen et al., 2007, p. 179).

The illustration above describes my involvement in this research. I perceive the observer phase as an accumulation period where I observed and reflected on the teaching and learning process of the photography course related to this research. At the commencement of this formal research process, my covert observer role developed into an overt observer as participant and participant "as observer" role. My involvement as a staff member in the course, but not a teacher of the practice subjects that formed part of the research, excluded me from being a "Complete Participant" and total insider.

Cohen (2007) relates historical data with "secondary data", instead of "primary data" within research (p. 248). It is dialogically reflexive. The dialogue, I propose, is between my contextual history filter as I engage with secondary data (related literature), which is historical, and the present primary data collected from research participants.

I suggest that a practitioner understanding will inform how practitioners value their photography practice. The data should then speak to the research question which asks:

> "Which important factors can be identified as influencers to the approaches and methods of photography practice education?"

However, individual participant perceptions, or clarity, might not assume coherent value perceptions from group perspectives. The research method in this research should then transform monologue[d] perceptions into a dialogue where new connected ideas are constructed. My hope is that clarity through constructive dialogue will result as the study unfolds.

I would postulate that the value perceptions supporting the participant's creative practice can surface when dialogue, in turn, is valued within the data collection process. Superficialness in qualitative data collection is always on the radar of critics. Holquist asserts that "[at] the heart of any dialogue is the conviction that what is exchanged has meaning" (2002, p. 37). The dialogic process in this research context, refers to the broader interaction between participant voices comprising literature, interview participants and myself. Alvesson and Sköldberg (2007, p. 65) suggest four voices that can dialogue and reflect: "the voice of the empirical, the voice of the deep interpretation, the voice of the critique and the voice of language". The research question maintains the boundaries of the research conversation as dialogue.

3.10   The data collection method for this research

The semi-structured interview was the primary source of primary "insight gathering" (Alvesson and Sköldberg, 2007, p. 377) or data in this research. Kvale (2007) refers to the "semi-structured life-world interview" that "attempts to understand themes of the lived daily world from the subjects' own perspectives" (p. 27). The participants in this research lifeworld revolve mainly around photography as a creative practice. The student participants are studying it fulltime, the teachers are lecturing it fulltime, and the professional practitioners are practising it as a living, fulltime. The research topic fits into this lifeworld, making it easier to connect with the participants on a deeper level. The aim of the interview

is to "picture" the "experiences and lived meanings" (Kvale, 2007, p. 28) of participants' practice world. The "picture data" that I will refer to later is not an objective or subjective view of the interaction, but an "intersubjective" (Cohen, et al., 2007, p. 409) picture of the interview encounter. In this research, I approach the interview with some idea of the topics under investigation. These understandings, as previously mentioned came through extensive interactions with literature, other teachers, professionals, and personal experience. However, McLeod (2003) quoting Scheurich (1995), asserts that there is "no stable reality" or "meaning" in an interview, but she continues that we need to design interviews that "provoke understandings that do more than reiterate the interviewer's essential indeterminacy" (p. 201).

Schostak further states that the human being is therefore not a perfect circle, enclosed admitting nothing in and letting nothing out (2006, p. 11). As being humans, we are "being in relationship" to one another. The interview, for him, becomes a "space/place. A kind of perpetual waiting room, where otherness is expected and awaited but never assimilated". (p. 12)

The word interview itself denotes this unique relationship. Chirban (1996), traces the etymology of the word to the Latin origins and Middle French as "to have a glimpse of" (*entre-voir*), "to see each other" (*s'entrevoir*), which he interprets "the inner view" (p. xi). His "search for a full understanding of a person's life" is specific to his quest for an understanding in the in-depth interview. My "quest" in the interview is not specifically about the participant but the participant's view of the topic under investigation. However, the topic is related to an inner value system of the participant, which associates the interview in this research with the character and approach of an in-depth interview.

It seems then, that this dynamic process deepens an awareness between the self and the other, "that in turn becomes the source of the energy in the interview" (Chirban, 1996, p. xiii). Bakhtin's multi-voiced concept of heteroglossia (Bakhtin, 1981), describes the conversation dynamic in which we experience some "organisation and coherence" while we contend with the "stream of conversation[s]" competing at the same time. Littlejohn and Foss suggest the social context of a person as a sphere that contains

"experiences, knowledge, attitudes, ideas, thoughts, and actions", "highly organised around the core" (2004, p. 236). The notion of "social penetration" into the sphere's "skin" to gain better understanding is propagated through the idea of "penetration theory" espoused by Altman and Taylor (Littlejohn and Foss, 2004, pp. 235-236). The aim of social penetration is access to the "core" of the individuals' sphere, towards understandings that are not that visible on the surface, also referred to as "the process of increasing disclosure" (pp. 235-236). Kvale (2006) asserts that an interview is not dialogue.

In the illustration below, I attempt to depict a dialogic interaction from what I understand from literature combined with my intention in the interview experience. Way et al. (2015), state that "a dialogic approach allows people to suspend assumptions about the world, open themselves to new viewpoints, and abandon a win-lose perspective" (p. 722).
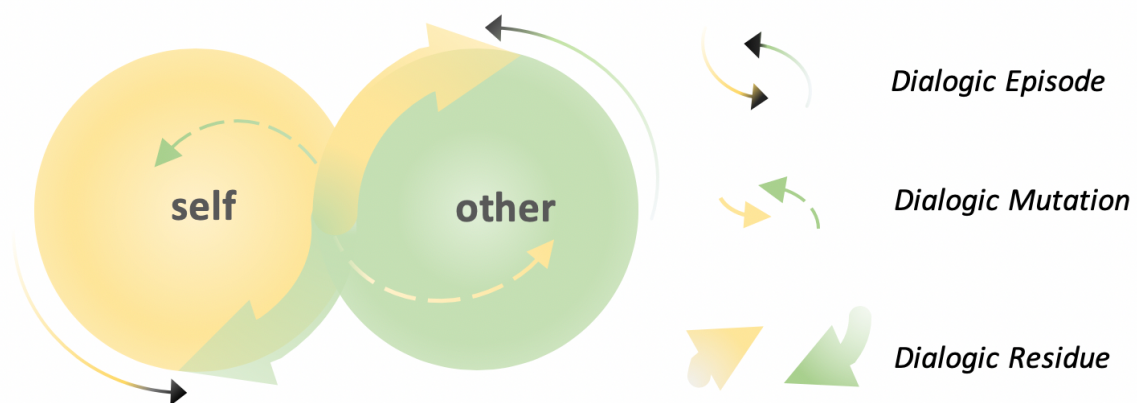
Figure 11: Dialogic interview event

In the illustration above, I depict the self and the other as similar, yet different. I do this to suggest that conceptually, the self can become the other and the other the self, in a dialogic sense. However, I do accept that every person is unique and magnificently different. In his book *Mastery*, Greene (2012) asserts that "[w]e are a one-time phenomenon in the universe - our exact makeup has never occurred before nor will it ever be repeated" (p. 25). The illustration enables me to visualise the relationship between two (unique) people in a one-on-one, unconstrained, interview setting. The difference and similarity exist on two main levels. On the research level I am the researcher directing the interview and conversation that follow. On a photography knowledge level, I can become a fellow photography

student that never stops learning, and a practitioner that understands the practice context of photography. As a researcher I recognise the fact that I am also an educator and practitioner, but the research questions help me to lead the research process.

I see the example as cogs without gears, as an interview dynamo that depends on transferrable dialogic energy. I perceive the two spheres that merge as a form of dialogic contact. The thin lines outside of the spheres indicate a kind of rotation, being in motion. I call this Dialogic Episode, denoting a dialogic event between two people. The impetus for the episode commencement is the start of the interview. I perceive this motion as rotational, indicating an engagement and a withdrawal in the dialogic process. The advancement could represent the participant responding to a question, while the withdrawal could show the reception of information.

The thin broken arrow indicates parts of the dialogue that penetrates the skin, moving towards the centre, or core (Littlejohn & Foss, 2004), where cognitive change can take place. This possible change could alter what is allowed out of the skin as a response later in the interview process. I call these thin broken arrows Dialogic Mutation. The broad arrows I refer to as Dialogic Residue. I postulate that information that is not immediately attracted to the core remain latent on the surface of the participant or researcher. This potential information can be channelled to the centre through connections that are made during the interview or after the interview. Dialogue, according to Nikulin (2010, p. 95), "is essentially based on interruption" that can take "unexpected turns" (p. 98). Nikulin further states that the interruption that dialogue provides "bring intercalators together" (p. 99), and the "rupture concealed in interruption is not one that separates, but rather the one that unites". This rupture allows for "a glimpse into the other's world".

In the illustration below I attempt to depict the rupture, or interruption of dialogue, using the lens as metaphor. Alvesson and Sköldberg (2007, p. 379) indicate that "metaphors should be chosen (...) to stimulate reflection and movement between the levels of interpretation". Holquist (2002) conceives of "philosophical optics" that he denotes as "a conceptual means for seeing processes invisible to any

other lens" (p. 19). He does this to refer to Einstein's thought experiments and Bakhtin's "attempts to use the situation of dialogue as a means for getting around traditional limitations of ideas on the subject" (Holquist, 2002, p. 19).

The insight gathering through interviews, as data, can also be seen as an integral part of solving the "mystery" that was "formulated" in the previous chapters (Alvesson & Sköldberg, 2007, pp. 377-378).
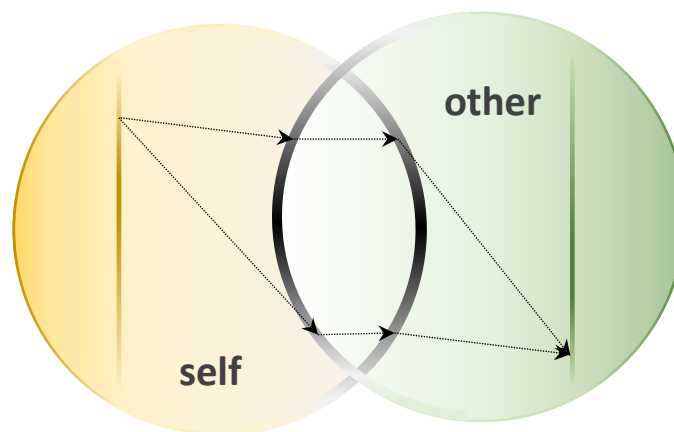
Figure 12: Dialogic lens of interruption

Self, in the dialogic interview situation, is therefore not "self-sufficient", but as a construct, "dialogic [and] a relation" (Holquist, 2002, p. 18). The concept of dialogism I believe applies. Holquist (2002, p.19) avers that,

> "Dialogism argues that all meaning is relative in the sense that it comes about only as a result of the relation between two bodies occupying simultaneous but different space, where bodies may be thought of as ranging from the immediacy of our physical bodies, to political bodies and to bodies of ideas in general (ideologies)".

With the interview as a relation between two bodies, the self and the other, I hope to interrogate the subliminal idea of craftsmanship within a creative practice educational context.

The purpose of the data collection in this research is to listen for any related factors that participants attribute to the teaching and learning process of photography practice. Although the process of data collection is overt, the process to find connected responses is covert. The open-ended nature of the interview provided an opportunity to probe participant responses on an individual basis. The semi-

structured character, in an open in-depth approach contributed a unique property to each interview. Personally, I relate well to such an approach. Wellington (2000), refers to the semi-structured interview as being, "flexible", "not completely predetermined", and allowing for "more control by [the] interviewer" (p. 75).

The interview process in this research was characteristic of a focussed conversation, also referred to as a "two-person conversation" (Cohen, et al., 2007, p. 411), rather than a formal and impersonal research interview. I purposefully allowed for this approach to draw out meaning perspectives, values, and practitioner characteristics that could be unique to the participant, rather than from the generic group. Cohen et al. (2007), refers to the interview as a "social, interpersonal encounter, not merely a data collection exercise" (p. 421). McCracken (1988) refers to social science research into people's lives as being "intimate" and relates the process to the construction of a "portrait" (p. 10). This research is not about my account as teacher in the programme. However, being part of the programme for almost three decades imbues a deep personal connection with this research.

Walford (2001, p. 98) states that "all research is researching yourself", which in my case might mean that this research centres around my intimate interest in the educational field and particular topic under investigation. In the context of this research, I will appropriate McCracken's portrait concept by referring to my interview process as the development of an *interview portrait*. In this sense, and in reference to this research experience, I would postulate that an adequate, "complete" *portrait* (my emphasis), would necessitate a contextually appropriate process. Furthermore, I would posit that the *resolution*-detail of the portrait data should be delimited and aligned to the objectives of the research. Portraits, even of the same person but at a different time, are not identical and need to emerge through collected data, at each specific time.

The interview approach outlined above should allow for adequate data towards individuated practitioner portraits. In these portraits, I will attempt to capture the perceived characteristic of the person at that event. The research question makes mention of individual students, teachers, and

professional practitioners, which opens the possibility of a research identity to emerge. The emphasis here is on the research identity and not so much the personal character of participants. The research identity resolution, in my view, and in the context of this research, will be enhanced by the employed process of reflexivity.

3.11 Participant artefacts in the interview

Photographers as image makers do not mind talking to their images. The course in which this research is taking place focus on photographic output and specifically the making of the photographic artefact. Technical, as well as visual communication aspects, are covered, and students are encouraged to talk about their images. I encouraged participants to bring some of their work to the interview. The research question highlights the teaching and learning of photographic practice and centres around the making process of the photographic artefact. One of the main reasons for the inclusion of participant images at the interview was to create a space of interaction that was familiar to them as practising photographers. Holmes (2005, p. 39) states that "the content of any medium is always the other medium". In this research context, I related this statement to the deeper connections with the image maker that could be embedded in the photographer's created photograph.

McLuhan (2013) make a distinction between "hot" (cinema, radio) and "cool" (print) mediums that can either "bombard" (hot medium) the viewer or assume "interactivity" (cool medium). McLuhan further states that,

> "[t]he printed word is a still "shot" of mental movement. The reader is the projector and audience as well. He puts the still shots or printed words into rapid motion and typically has the illusion of following the movements of thought of the author. He may even have the illusion of carrying on a dialogue with the writer' (1958, p. 66).

I would associate the "still shot of the mental movement" with the *still shot of the visual movement*, where the dialogue with the maker (writer) is taking place in real-time, containing the discussion during the interview, while drawing the researcher deeper into understanding the practice lifeworld of the participant. I would also relate this moving in and out of the participant's lifeworld to a process of accessing Emic and Etic access realities of the participant.

It is also hoped that an image artefact, as a practice-extension of the participant, could assist the research focus as required by the research question. McLuhan postulated that anything that "extended the body senses (…) earn[ed] the status of media" (Holmes, 2005, p. 41). This view supports the idea of a relationship between the photographer and camera that results in a visual expression. This media expression could then strengthen the interview participants contribution to the process. Derrida refers to the communication concept of Logocentrism, which I find applicable in the interview setting. Logocentrism can result in "an overpowering desire for self-presence" (Holmes, 2005, pp. 123-124) by the researcher in the interview setting.

The option to bring an artefact along to the interview setting also acknowledges the significance and role of the practice output. Appropriately then, it supports the nature of this research that is saturated by the idea of craftsmanship.

3.12   Data sampling for the research

The primary data for this research was collected within the photography section of the Department of Visual Arts and Design, located on the campus of the Vaal University of Technology. The photography community of practice probed in this research consists of three subgroups namely photography students, photograph teachers and photography professionals in industry.

There is no set of "rules for sample size in [a] qualitative enquiry" according to Patton (2002, p. 243), but he does indicate what such a sample will depend on.

In the table below, I briefly contextualise this research sampling strategy against his suggestions:

Patton's suggestions for choosing sample size	The requirement of this research
"What you want to know"	Factors that influence practice pedagogy in a specific photography programme.
"The purpose of the enquiry"	To influence my personal pedagogic practice knowledge.

"What is at stake"	Eliciting responses from individuals related to the specific teaching programme.
"What will be useful"	To get a purposeful representational view from selected participants.
"What will have credibility"	To elicit participant student, staff, and related industry views.
"What can be done with available time and resources"	Considering the cross-sectional scope of this research, it would be ideal to limit participation an essential number by which sufficient saturation can be achieved.

Figure 13: Patton's sample size suggestions related to the requirements of this research

I was not interested in a representative opinion of students studying photography but needed student practitioners within our specific course. From my personal experience teaching photography students over a period of almost three decades, it was evident that the student practitioner experience changes in areas such as technical skill, visual appreciation, practice methodology, personal voice, and focused participation in the course. My perception was that discussions with students from various stages of the programme might elicit a more comprehensive holistic view. It is accepted that time spent with a making process should change personal perspectives of the practitioner as they become more experienced and grow accustomed to the medium (Greene, 2012; Sennett, 2008).

Achieving depth and purpose through small sample sizes is categorised as "Purposeful sampling" by Patton (2002, p. 230). Wellington affirms that this is the most likely sampling method in Naturalistic research (Wellington, 2000, p. 30). "The power and logic" of "Purposeful Sampling", according to Patton (2002, p.230), "lies in selecting *information-rich cases* for study in depth". I combined Purposeful Sampling with Criterion Sampling for the student sample. To ensure "quality assurance" (Patton, 2002, p. 238) within the student cohort, I needed students that could contribute to a research focus that was directed at immersed practitioners. Practical considerations are crucial for the in-depth interviews and Creswell suggests the "the researcher needs individuals who are not hesitant to speak and share ideas" (2007, p. 133).

I initiated the student participation selection process with an introductory talk about my research process to each class group. Students interested in participating were asked to inform the coordinating teacher. I asked teachers coordinating each year-group to select four candidates from the interested students. The only guiding criterion that I proposed to teachers was to choose students that were engaged participants in the course. The nature of this research was about active photography participation and not a generic view of student life in the photography course.

After the names were submitted, I called a meeting with the individual groups where the research process was discussed in more detail. Participant information sheets and consent forms were discussed and handed out the prospective participants. At this stage, students were given the option to withdraw and were also informed that they could withdraw at any time during the process. Dates, times, and an appropriate venue for interviews, suitable to the participants, were discussed and agreed to.

Considering the small size of the teacher cohort in the photography course, it seemed appropriate to approach all staff members to participate. There were four staff members who all agreed to participate. I arranged individual meetings to discuss the participation parameters including dates, times, and venues for the interviews. After the brief meeting, I sent the teacher participants a confirmation email with the participant information sheet and consent form attached. This selection process was also purposeful and could be categorised as "Intensity Sampling" (Patton, 2002, p. 234). Patton describes Intensity Sampling as "[i]nformation-rich cases that manifest the phenomenon intensely" (pp. 234, 243).

3.13   Ethical considerations

This research was not interested in the personal life worlds of participants outside of their creative practice learning, teaching and professional practice context. The research interview relationship was relaxed but professional and subject-discipline specific.

The principle of self-determinism empowers participants to make an informed decision on the risks and benefits of participation in the proposed research (Cohen, et al., 2007, p. 77). This principle, known as

informed consent can also imply "informed refusal" if a participant withdraws during the research process (Cohen, et al., 2007, p. 78). The focus of the research project involves adults' opinions about the nature of practice making in their daily media activity. Concerns such as "exposure to stress, pain, invasion of privacy", or "drug research" (Cohen, et al., 2007, p. 77), are not applicable to this study.

The research aim of this study is directed towards improvement of a teaching and learning approach to which students are committed financially. It might even be acceptable to say that it could be seen as unethical, not to do some form of pedagogical or curriculum research that benefits the quality of a programme. Vandenberg et al (1997) aptly state that pedagogical research deepens the understanding of the lecturer to assist the "young people to become themselves and to give the courage to be" (p. 163). Programmes such as the Ed D are also praised as research relevant due to the professional practice context that is encouraged (Punch, 2009, p. 41).

In my context as researcher participant, I made sure that none of the research activities compromised any academic engagement the student is enrolled for, or for which the staff member is responsible. Participants could choose the time and venue for interview participation, and female participants were encouraged to bring someone along to the interview if they would feel uncomfortable being there alone. The research is also of such a nature that it cannot affect academic progress of the student or collegiality in the process of staff participation.

The ethical standards were maintained as stipulated in the institutional guidelines of Bournemouth University, where the study is registered, and the Vaal University of Technology, where the data collection took place. The research was undertaken in the spirit of *primum non nocere "(do no harm to participants)"* (Cohen, et al., 2007, p. 542)*. The relevant ethical forms were completed for safekeeping. A participation information sheet on the scope of the investigation was prepared and distributed to the individual participants. An information session was also held where the potential participants could ask questions about the research process. The main point of concern for me was not to waste the participants' time in conducting the interviews. Issues surrounding privacy, anonymity and confidentiality were respected and ensured. Care was also taken to simplify the educational language

used in the interview at the risk of embarrassing someone unnecessarily (Hoggart, et al., 2002, p. 231). An example of this was a gentle approach to the term "craftsmanship". The term "making" was sometimes used instead. Care was taken not to create an opportunity for participants to feel compromised in their private capacity revealing "sensitive matters about themselves" (Cohen, et al., 2007, p. 170).

Transcribed interviews conducted for this study did not refer to the participants by name. Anonymity was respected in the transcripts and discussions of the transcripts in the thesis. The necessary institutional regulations at VUT (where the interviews will take place) were adhered to as stipulated in the research guidelines of that institution. In addition to the participant consent forms and the participant information sheet, the HOD of the Department of Visual Arts and Design was informed of interview procedures conducted at the VUT campus. Permission for this research on the campus of the VUT was given by the Human Sciences faculty and Faculty Research Committee. The Faculty Research Committee obtained the necessary ethical clearance certificate for this research.

3.14 The data collection method

3.14.1 Interview structure

Burnard (1994) asserts that structured interviews allow for a straightforward analysis process whereas unstructured interviews "poses difficulties" (p. 111). The semi-structured interview process, used in this research, will align the interview session with the aims of the research while encouraging a participant-directed approach.

The purpose of the interview was explained at the individual interview sessions. Researcher and participant roles were clarified, and the following pre-interview protocols were taken care of before commencement of the interview (extracted from the interview protocol (Annexure 2):

3.14.2 Interview setting

A room that is comfortable, not in a noisy environment and with good ventilation.

A table and two comfortable chairs (or equivalent).

Water for the interviewer and participant.

3.14.3 Equipment

Audio Recorder.

Back up recorder (switch all phones on airplane mode to eliminate any cellular activity).

Notepad and writing utensils.

3.14.4 Welcome and introduction

- State the date and time, the participant code, the venue, and the research title.
- Thank the participant for their willingness to participate.
- Ask them if they are comfortable and if they are free to focus on the research for the next hour.
- Explain to them that an audio recording will be made. Ask if they have any objections to this.
- Introduce the participant to the topic and research question to be probed.
- Explain what the interview will probe and how project planning, examples of personal creative practice, project launches will be used in the data collection process.
- Unhindered participation was encouraged to negate possible barriers caused by usual institutionalised hierarchy. The purpose of the interview experience would be to eliminate any hindrance that would cause the participant to speak assertively and freely.

3.14.5 Interview planning

The interviews were recorded on two separate recorders, in case one malfunctioned. During the pilot study, I video recorded the interviews with the aim of using the video footage in the analysis and to make a compilation video, or video portrait, of interesting views about the act of creative making. For reasons of efficiency and research focus, I decided not to pursue the video recording in the primary study. I made sure that the interview environment was suitable for good quality recordings and that participants would be undisturbed and comfortable.

Interview questions were directed at the teaching, learning and general factors that might affect photography practice education. The reason for open-ended interview questions was twofold (Wellington, 2000, p. 148). Firstly, as suggested by literature, the questions were supposed to stimulate engagement and conversation instead of a yes or no answer. Secondly, I wanted participants to reason out the response in a considered manner, thinking aloud. The initial questions were introductory,

probing their interests in photography and time involved in photography. Questions then probed the motivation, intentions, principles, methodology, reasons and way teacher, learner and professional practitioners think about photography practice.

In the table below, I illustrate the difference between planned questions and how domain-related questions emerged during the interview. The table only illustrates one of the many question themes as an example of how a dialogic approach changed the formal question structure to a more engaged approach. Constantly reviewing literature during the question planning phase and the actual interview informed the context of the question aim, enabling me to become more conversant through my own expanded understanding of the theoretical idea.

Question grouping	Planned question approaches	Extracted examples of actual questions during the interview process.
Practice	*Involvement with the medium* How long have you been practising photography? Can you indicate what you have learnt when making this image?	How long have you been involved in teaching photography? How long have you been involved with image making? How long have you been practising as a photographer?
	Image making effect on practitioner Can you indicate what you have learnt when making this image?	Now, who controls this complete process? Apart from the audience, almost drawing it out from you. Let's talk about that making process. I do think there is a connection [yes], from what you have said [yes], you can't separate… Photography demands attention to detail [yes]. It demands skill [yes]. It demands a combination, a thought process between theoretical principles and practical execution [yes]. There are these principles in photography that becomes a part of the practitioner [yes, yes, yes]. What is the process that goes through your mind?

Figure 14: Planned questions evolving into interview dialogue.

The semi-structured and open-ended questioning format allowed for a more engaging approach into the essence of what the question was intended to elicit. I let the conversation flow in a controlled manner within a topic until some form of saturation was reached, similar to a regular conversation. This approach limited the possibility of same depth being achieved for every theme in each interview. This limitation was not a drawback for the research project; some interviews adopted a thematic character, which, when combined with other interviews, achieved a holistic response to the research question. Because question themes were interlinked, saturation was reached sooner than expected.

3.14.6 Interview protocol

The interview protocol can act as a guide and structure during the planning phase and the actual interview. The process of constructing an interview protocol was more beneficial during the interview planning phase than the practical interview session. The protocol provided a global view and context of what could be asked during the actual interview. It helped me to consider the different aspects that emerged from the literature review as signposts for possible probing. The signposts informed topics that could be probed towards an understanding of the research question.

In practice, the semi-structured interview process allowed for more in-depth probing into as specific aspects as they unfolded. The interviews took on a unique identity, particular to each interview participant. I preferred this identity characteristic, which promoted a more directed, open-ended, and comfortable session, instead of an artificial structure that had to cover all the interview questions similarly.

It was important that the identity of the research was not lost in this process. Bourdieu's (2000) notion of the "illusio" could be used to explain facilitation of coherence that the interview setting can play. Bourdieu (2000) refers to opposite sides that play in a game, whereby there would be no "benefit from the game" if the participants do not "take part in the game" and "taken in" by the game" (p. 153). He further relates this notion of illusion to artist, referring to the "collective belief in the game" (Bourdieu,

1995), which Wellington relates to the act of combined publication (Wellington, 2000, p. 50). Publication in this research context can refer to the combined utterance of data through the interview act. Every participant arrives at the interview setting as containers of past knowledge. Bourdieu (2000, p. 154) sees this "body" as a container of "history", which "espouses his job". Job, in the context of this research, could be the placeholder of photography, as an occupation. The research task after the interview is to make this conversation explicit for data processing in the form of transcription. Wellington (2000) notes that transcription is the first step in the analysis process (p. 152)

3.15 Making sense of the data

Huberman (in Miles & Huberman, 1994) relates this concept to data analysis (p.12), the development of research questions (p.25), data collection (p.28), coding and reflection (p.56), reporting (p.85), transcriptions (p.88), interview criteria (p.186) basically encapsulating the entire research process. Cohen et al. (2007), suggest multiple reasons for doing data analysis. From their list, I align my intentions with the following: i) to interpret, ii) to discover patterns, iii) to generate themes, and iv) to explore (pp. 538-539). Saldaña (2009) describes the process as "heuristic" and refers to the Greek meaning of coding "to discover" (p. 8). This process of discovery is well explained through the concepts "upwards and outwards", and "downwards and inwards" in the writing of Pole & Morisson (2003, p. 118).

Many writers warn against too much or too little data (Cohen, et al., 2007, p. 539). Wellington (2000) refers to "over-collect and under-analyse" and suggest "milking the data" appropriately through a process of ongoing reflection (pp. 133-134). Wellington repeats that "data collection is part of the research cycle" (2000, p. 134), and needs to begin early in the research process. Lewins and Silver (2007, pp. 87-88) suggest that coding should begin early on in the project. McCracken (1988) advises that the researcher, the "self as an instrument (...) must read interview [transcripts] with a very careful eye both to what is in the data, and what the data "sets off" in the self" (p. 44).

As I engaged with literature, I developed a feel for what I would like to probe. My input into the possible coding categories could then be described as an Etic focus, and the codes from "the participant's terms and viewpoints as an "Emic focus" (Miles & Huberman, 1994, p. 322).

The Reflexive process proposed by Alvesson and Sköldberg (2018) in this research trigger a constant zooming in and changing of angle, "reviewing and reflecting" (Cohen, et al., 2007) of the data. Suggestions in the literature of how to separate and group bits of data into broad categories and finite codes are numerous and open to interpretation.

The initial concepts and trends that relate to codes are derived from literature, in addition to personal practice experience in my teaching and photography career. It is, therefore, *a priori*, and deductive from literature and experience, and need re-evaluation as I engage with the data. The data, as a *posteriori* influence, will be the primary source of inductive thinking towards themes and codes (Wellington, 2000, pp. 133-150). The immersion, as Wellington suggested, started with notetaking at interview sessions, during transcription, before coding, during coding and after coding. The interview protocol used in this research was developed from an extensive, and prior, literature review. The research question was constructed explicitly as open-ended to accommodate deep as well as surface concepts that relate to learning and teaching factors. In this way, the research question provided flexibility to probe issues further within the characteristically similar, open-ended, semi-structured, interview approach.

Saldaña (2009) is of the opinion that codes are essence-capturing and essential elements of the research story. He elaborates that clustering together of codes "according to similarity and regularity – a pattern – they actively facilitate the development of categories and thus analysis of their connections" (p. 8). These clustered categories become "the bones of your analysis" (Saldaña, 2009).

Miles and Huberman (1994, p. 10) suggests that analysing the data "data reduction" is a process that begins with data reduction, then data display, which results in "conclusion drawing". Wellington (2000, pp. 261-263) suggests stages that include:

- "Immersion- Getting an overall feel for the data, immersing oneself in the data

- Reflecting, stand back, sleep on it

- Taking apart - to break down into components

- Carving up into manageable units

- Selecting or filtering out units that can be used, categorising and coding - themes and patterns

- Attempting to subsume subsequent units

- Recombining and synthesising

Crabtree and Miller (1999, pp. 127-144) refer to the dance of qualitative data analysis, which they also refer to as "a complex and dynamic craft" (pp. 138-139). Miles and Huberman (1994, p. 324) contextualised the three phases of the dance as:

> "1. When the researcher reads the text literally, she is focused on its real content and form, so the text "leads" the dance.
>
> 2. When the researcher reads the text reflexively, she focuses on how her own orientation shapes her interpretations and focus. Now, the researcher leads the dance.
>
> 3. When the researcher reads the text interpretively, she tries to construct her own interpretation of what the text means".

3.15.1 The data analysis approach for this research

My approach to the data aligns with an iterative view that emerges from the literature mentioned above, starting at the beginning of the research process, and can be described in the following steps:

- beginning with the initial research idea

- examining related literature, as secondary data, associated with the concept

- identifying primary data source candidates from the course in which I teach while conceptualising the methodology

- making notes while interviewing the participants

- making notes while transcribing the interviews

- re-reading the transcriptions twice, while making notes

- writing comments and definitions of codes while reading the transcriptions imported into Atlas.ti

- writing memo's while grouping the codes into possible categories

- making further notes and adding to existing memos to identify possible themes that emerge from the data

- interpreting the results, presenting the findings.

The process described above was iterative and reflexive. It never followed the textbook ideal of a sequential process. The process of reducing the data to form the meaning unit (coding), without losing the meaning in the text, moves towards a more abstract process of categorisation and theming (Graneheim & Lundman, 2004).

3.15.2 Coding of the data

"Pre-coding", according to Saldaña (2009, p. 16) starts with marking parts of the text that the researcher recognises as "worthy of attention". In this research, precoding started with the conceptual understanding of creative making, teaching, and learning and dialogue. Saldaña cautions that "[c]oding is not a precise science; it's primary an interpretive act" (2009, p. 4). In this interpretive sense, I became interested in probing these interwoven concepts that spoke of an approach to creative practice making.

Craftsmanship seemed like an appropriate term to identify this conceptual world. Photography practice, as a discipline in which the idea of craftsmanship could be probed, became the outer ring of this research world. Education, specifically Higher Education, and the teaching of photography practice in Higher Education, became the workshop and laboratory in which I researched. The research lived in the same workshop where the mind and actions of the teacher and student participants were being shaped. The market for the products coming out of this educational workshop is destined for a connected industry workshop, where learning continues in a self-directed, commercially driven manner. The

different workshops (education and industry) were not the emphasis of this research. Neither was craftsmanship the primary focus. The focus of the data collection for this research is the practice values of craftsmanship in a specific photography programme. The understanding of these values, could be embedded in the practice perceptions of student, teacher and industry practitioners. The "data mining" (Myatt, 2007) in this research, would then focus on possible factors that the participants identify which could influence the approach to teaching and learning of photographic practice. These factors might be subliminal and not identified openly as factors. A questioning approach that leads to more in-depth conversations about the photography making process will hopefully identify related "aspects" (Adu, 2016) or an "idea" (Cohen, et al., 2007, p. 559) that can be coded.

To identify factors in this research, "decoding" (Saldaña, 2009, p. 4) and "essence capturing" (p. 3) aspects of the participant interview transcripts were identified or "coded" (p. 4) by me, as "an interpretive act." (p. 4). This interpretive act is influenced by my habitus in the process of coding and is referred to in Saldaña (2009) as "a judgement call" (p. 7).

4 Coding the research data

4.1 The coding of the research data of the main study was preceded by a pilot study.

4.1.1 Purpose of the pilot study

Reliability of the data collection process and an appropriate manner of processing this data was the primary aim of doing a pilot study. Before the pilot study, I had many ideas of how to gather data for this study. I wanted to observe, interview, participate in projects, work alongside industry professionals, follow practical projects from conception to completion of the course that I was teaching in. I also wanted to video record participatory interactions such as interviews. For the pilot study, I decided to narrow possible data gathering activities to interviews and observations.

During the pilot study, it became clear that interviews would be sufficient to fulfil the research aims of this study. It was the first time that I would conduct research interviews. The pilot study provided an ideal opportunity to test the mechanics of the interview structure, transcription, and data processing.

4.1.2 Pilot study structure (sample size, interviewing method)

The pilot study was broken up into two stages: the **first stage** included a discourse analysis of the textual submission from participants that provided me with an insight into participants' thinking on their making process. This first stage assisted in constructing the **second stage** in-depth interviews with three individuals from three identified participant groups. The teaching context of photography, as a field of study, and the career orientation of the course that we teach qualified the three participant groups for the pilot study. These inter-connected communities include the students studying the course, the lecturer (teacher) teaching practice in the course and the industry professional practising in the field for which the course prepares the student. The connection between them is seen as the learning, teaching of photography-making, and the professional practice of making visual artefacts in the broader field of the photography industry.

An observation as part of stage one was planned to further inform the second stage interview process. A prolonged ethical clearance process resulted in time constraints that eliminated the viability of successful observations; the observation was substituted by an industry visit instead. I used the opportunity of this visit to evaluate the possibility of including such an event in the final study. I postulated that short student interviews, at the site of the industry visit, could capture rich data while the students were captivated by the industry spirit.

4.1.3 Pilot study data analysis

At first, coding seemed relatively simple, but as I coded the interviews after the reflective writing exercise, codes expanded dramatically. Codes varied in number per document between 16 and 18 for the reflective writing analysis and 52-58 for the in-depth interviews. The choice of themes was influenced inductively by emerging codes from the interviews as well as deductively from the concepts identified in the initial writing exercises.

The table below indicates the possible relationships between the resulting themes and concepts from the reflective writing exercises in relation to the essence of the research question probed. Themes for the analysis were selected for the pilot study data analysis, from these relationships.

4.1.4 Managing the data

I used Atlas.ti as the Computer Assisted Qualitative Data Analysis Software (CAQDAS) to manage the data retrieved from interviews. Miles et al. (2014) acknowledges the importance of keeping track of research processes in codebooks and records of various other research processes but underline data management as the most critical research administration task. Signature software such as Atlas.ti, designed explicitly for research management, enables the researcher to keep all data that is research related interlinked and contained in one place. The research project was an ideal opportunity to familiarise myself with data management software specifically for research. As a fledgling researcher, I

see this skill as one of the most productive skillsets in the research process to enhance efficiency. This skill set allows the researcher to engage in a larger group or individual research opportunities.

The coding of the interviews was very time consuming and focused work. Later, I discuss this process in detail under the heading "My Judgement Calls". As a new researcher, I found this process challenging but meaningful. I tried to be as thorough as possible, which resulted in many codes that went through refinement towards fewer and more manageable codes. The data management software allowed me to look at the data in various groupings, allowing me to see similarities between coding suggestions that could be regrouped into existing code labelled or newly created labels that captured the essence of the combined codes. I tried to identify codes related to my perceived factors, suggesting influencers. I related associated influencers with broad categories that could lead to themes that informed the analysis process. The reasoning structures (themes) that developed from the codes became broader grouped factors that could inform discussion and analysis.

The reflexive process is predominant in the data analysis phase, as illustrated by the non-linear process of the distilled themes. Friese (2019) describes it as a recursive process where the researcher moves back and forth between the constructions within the process of theme identification.

4.1.5 Pilot study and findings

The essence of the research question probed the "understanding of craftsmanship practice". The concept of craftsmanship seemed to be ambiguous and prompting a change of emphasis to the creative act of making instead of using the word craftsmanship. The focus on making, in the context of craftsmanship practice assisted me in the identification of the codes.

One of the main realisations during this process was that my understanding of the data analysis process was limited and needed depth.

4.1.6 Suggestions from the pilot study

The participants have some understanding of craftsmanship practice. They commented eloquently on their knowledge of it. However, a theoretical conceptualisation of the concept "craftsmanship practice" differed to such an extent that a meaningful, coherent conclusion would be difficult to construct from three respondents. It must be noted that the notion of craftsmanship is complex and varied, even amongst practitioners and philosophers. It would be vexing for the average practitioner to delve into the plethora of writing and opinions, not because of intellectual incapacity, but rather the non-practitioner views of theorists. What was apparent is that a practitioner has a real and personal understanding, perhaps the firm view of making, which they would justify as a form of craftsmanship. It was therefore decided to focus on attributes and value perceptions of the idea of craftsmanship, instead of craftsmanship as an idea in the primary study.

Clarification of practice as knowledge could assist in a coherent appreciation of the values of craftsmanship instead of an absolute understanding of the term craftsmanship practice.

A signature pedagogy with an embedded directive of craftsmanship understanding can affect

a) students' expectations and response to education,

b) teachers' connection with what it is that students are coming to study, and

c) future professionals that are more confidently prepared in the craft of their practice.

However, my interpretation of signature pedagogy is different from Shulman's idea. Dialogue as a teaching and visual construct were thought to be more fitting in this research. The emphasis must then shift in the primary study towards a dialogic approach for the teaching and learning approach within creative practice education.

The research question should be simplified to contain the project within the scope and timeframe of this research study. Interview transcriptions are time-consuming and should be outsourced or

considered in the scope of the time that is available for the research. Unplanned eventualities, such as student unrest, could occur.

4.2   The main study

The pilot study provided an opportunity for interview format experimentation, practical interview experience, coding and theming experience, and most importantly, to explore the research question. The initial research question, was transformed dramatically through an extensive literature review; this process provided context for the interlinking of separate educational, creative practice and philosophical views. It opened my perspectives on the underlying themes and led to one clear research question that embodied all the factors that students, teachers and industry professionals could contribute to. It was decided that values, as a theme from the research title, should be linked to the factors that participants identify. Broader themes such as craftsmanship, teaching and learning dimensions that relate to photography practice, spaces in which practitioner's work, and practice processes that creative practitioners follow and experience, all form part of the practitioner life world.

4.2.1   Preparing for the main study

The following research questions were used in the pilot study:

- What is the value perception of "craftsmanship practice", of learners and teachers in the academic institutional context, and professional industry practitioners within a related media production context?

- What are the requirements for the:

    1) physical space in which craftsmanship is practised,

    2) contextual area in which learning and teaching take place, and

    3) ideological space that is readjusted through a prolonged process of learning?

- How can the notion of a signature pedagogy that promotes the values of craftsmanship enhance the learning of photography and media practice?

The pilot phase, which included an oral exam, prompted further simplification to the research question. This needed to condense and focus for the main study into a manageable proportion.

A radical reconceptualised research question resulted. All the questions and sub-questions were reconceptualised into a single question. This reconceptualised question provides a singular research focus that encapsulates the specifics that would be addressed instinctively during the interview process.

The revised question would allow for flexibility in the interview direction which would allow participants more freedom to co-steer discussions. In the primary study, this process also facilitated an interlinking process between the different interviews. The separate interviews became a connected and extended dialogue concerning the same issue of photography practice education. This process also complemented and extended the reflexive research process. Iterations became an interconnected link between interviews as opposed to different events with the same candidates. Furthermore, this process resulted in achieving a sense of saturation sooner than expected.

4.3   My "judgement-calls"

As a "research instrument", my affiliation with the data site is essential. During the years teaching photography, I have continually adapted my teaching approach. I have also had ongoing discussions with colleagues that teach in the same department and had various forms of external contact with other photography educators and with the photography industry.

Ian Dey (2005, pp. 33-36) points out the importance of contexts from which the qualitative data analysis is done. He further reiterates that "contexts can also be seen as a key to meaning, since meaning can be conveyed "correctly" only if context is also understood" (p. 33). The researcher-participant relationship becomes important, as pointed out in the dialogic interview event illustration previously. This interview communication illustration can also be contextualised as "initiator and receiver" where "neither has a monopoly on the meaning that passes between them" (p. 35). Instead, the initiator receiver interaction becomes the dialogic intersubjective heartbeat of the data analysis process.
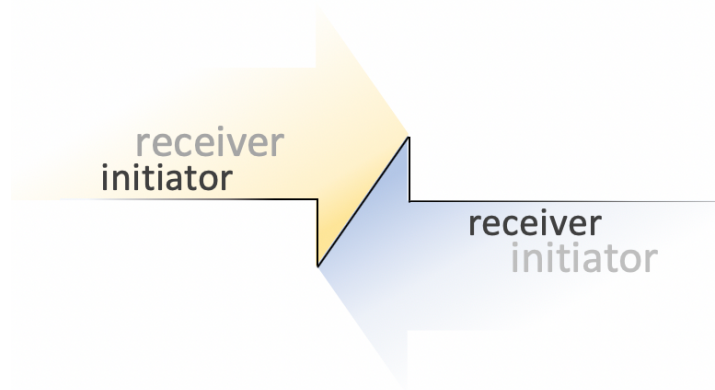
Figure 15: Intersubjective data analysis heartbeat

Dey (2005) also point out that the awareness of my relationship, as researcher, to the data collection site (including participants), is essential. This is my observation of the phenomenon and might differ from another observer's "position" to the event (p. 36).

To get to the "more central characteristics of the data", Dey (2005) suggests the "stripping away" of "unnecessary detail and delineate more clearly the more central characteristics of the data" (p. 40). The grouping together of smaller significant bits of the data that results in a central message, which, in the instance of this research, tells the story as a response to the research question under investigation. Dey (2005, p. 41) describes this process the assembling of a "3D puzzle" that we take apart because we want to "find a way of putting it back together again". He also suggests categorisation to group data to assist with "comparisons" between the grouped data. However, before categorisation can take place, I need to "decode" (Saldaña, 2009) the "puzzle" (Dey, 2005) through a coding process.

The overall coding process was done in service of the research question:

> "Which important factors can be identified as influencers to the approaches and methods of photography practice education?"

The codes became aspects, which could point to influencers. The reflexive research strategy employed in this research allowed for an iterative cyclical process to refine the codes.

During the first coding cycle, I identified twenty-eight codes as separate "utterances" (McCracken, 1988, p. 44), which could become "entranceways". These codes synthesise the raw data or quotation, into a concept or main idea of what the person said. In Figure 17 below, I illustrate the result of the initial coding allocation process. This initial coding process resulted in 46 codes with a total frequency of 838 code occurrences.

Code	Code frequency	Code	Code frequency
Craftsmanship Association	39	Working as a collective	18
Hand	15	Working in isolation	11
Process	13	Practice and Theory Knowledge	11
Skill, Mastery, Craftsmanship	28	Professional Practice- Learning	4
Personal and Commercial	10	Producing for a purpose	1
Problem-solving	10	Professional practice teaching	4
Voice	39	Subject preference	7
Analogue-digital, Old New	18	Assessment	7
Artefact	8	Authority	9
Confidence	30	for You or me	7
Continuous learning	12	Achieving excellence	24
Experimentation/ risk	16	Enjoyment	21
Failure/success	18	Experience	35
Institutional/external demands	1	For business inclination	5
Learning from example	13	Ideal student / teacher	7
Personal work	19	Inspiration	25
Place and space	16	Learning	78
Shaping by history	18	Observation	20
Technical	16	Planning	8
The tool	22	Repetition	6
Self-Knowledge	27	Teaching by example	25
Teacher as practitioner	30	Time	16
Teaching	52	Value influencers	19

Figure 16: A table of initial codes and code frequency

As I coded the initial ideas, I noticed some "entranceways" that I provided a representative placeholder for future categorisation. I proceeded to lump similar codes together that associated with one another. The screenshot Figure 18 below from the Atlas.ti software illustrates this process.

Figure 17: Screenshot of Craftsmanship used as an entrance way

Stepping back, I viewed this coding process as initial coding of the "first cycle" of coding, mostly derived from a "provisional coding" (Saldaña, 2009, p. 120) list that I identified from literature and the interview questions. This process helped to make associations between the codes. I also wrote short comments on the selected quotes that served as code definitions. I noticed a form of saturation in the manner in which student participants responded and decided to reduce the number of interview transcriptions for analysis to four. There were slight variations in the responses, but no new views emerged. At this point, I decided to step back and consider my analysis process strategically. I critically looked at the coding process, including the code groups I already identified, to establish if the current process is setting the scene for the second cycle coding.

My coding strategy included liberal use of "simultaneous coding" (Saldaña, 2009, p. 62) where "two or more codes within a datum" (Saldaña, 2009, p. 5) was allocated. I did this to start linking different ideas to the same quote for possible conceptual elaboration in further into the process.

Figure 18: A screenshot of Simultaneous Coding in the research using Atlas.ti software.

I was in danger of losing "clear research purpose" (Saldaña, 2009, p. 64). Saldaña suggests a process of simultaneous coding to break the larger quote "down into constituent elements" (2009, pp. 46-181),

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which could then support "process coding" to see the "bigger picture" while being aware of the "trees in the forest". Process coding, I thought, would suit this research because its purpose was to capture action using "gerunds (ing words) exclusively to connote action" (Saldaña, 2009, p. 77). Process Coding denotes "ongoing action" (p. 77)
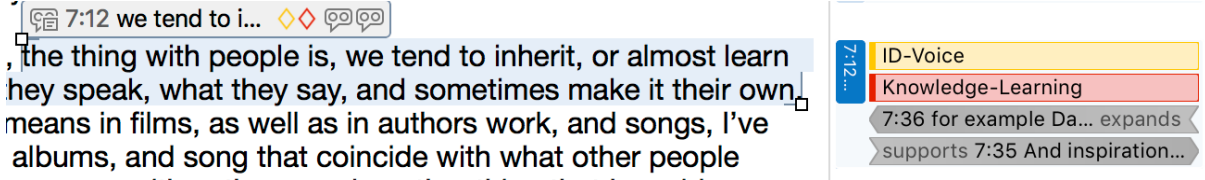
Figure 19: A screenshot of Process Coding in the research using Atlas.ti software.

Initial process codes in my data collection included words such as learning, teaching, solving, making and working. For my first cycle coding purposes, I used two more the "[e]lemental methods" processes suggested by Saldaña (2009, pp. 66-101). Structural Coding or Holistic Coding is described as a "categorisation technique" (p. 66) that captures broad meaning perspectives. See the illustration below.
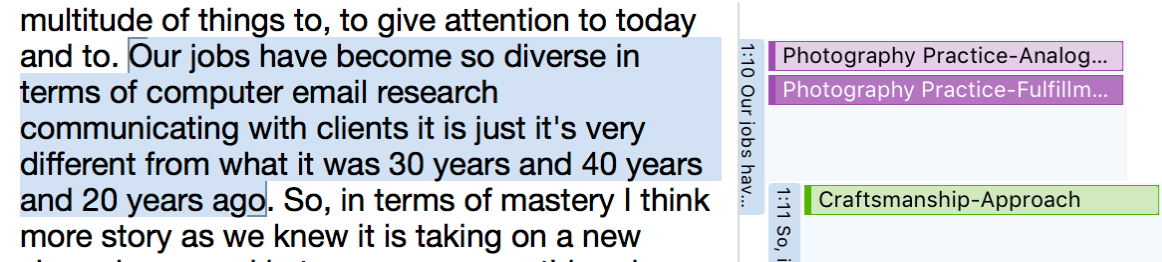
Figure 20: A screenshot of Structural Coding in the research using Atlas.ti software.

Descriptive Coding (Interview transcripts, Assigned to sub codes) (p. 70)
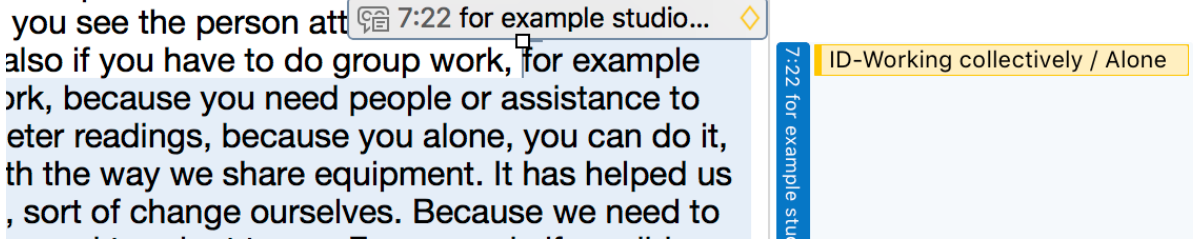
Figure 211: A screenshot of Descriptive Coding in the research using Atlas.ti software.

The second iteration of coding commenced creating some research focussed order out of all the possibilities. I decided to reduce the number of codes and to simplify the code frequency into manageable categories. Saldaña emphasises that "reorganising of data" should allow for the

construction emergent categories and should not be seen as a code reorganisation (Saldaña, 2009, p. 158). Cohen et al. (2007) point to the importance of considering the "theoretical constructs" underlying the research when allocating categories to grouped codes (p. 559). The coding and category labels "is either decided in advance or in response to the data that have been collected" (p. 559), which can be seen as a "dual process of induction and deduction" (p. 560).

Code reduction was done using Atlas.ti data analysis software, by dragging and dropping codes on one another. I decided to precede this process by working with a manually tabulated list first. This manual process provided a quick holistic insight into categories and possible connections. I replicated this process in Atlas.ti once the reorganisation was done. Atlas.ti would then allow me to make connections between the bits of data in the form of a code network.

Saldaña (2009, p. 140) refers to the "first cycle" as "meaning condensation" that is progressively "woven together" and "meaning interpretation" during a second cycle. In the second iteration (second cycle coding) I use pattern coding to organise and "attempt to attribute meaning" the organising of the existing code list (Saldaña, 2009, p. 150).

Editing codes was a continuous process as I re-engaged with the data within the transparent PAR methodology that was conceptualised for this research. Figure 23 below illustrates the process of code editing.
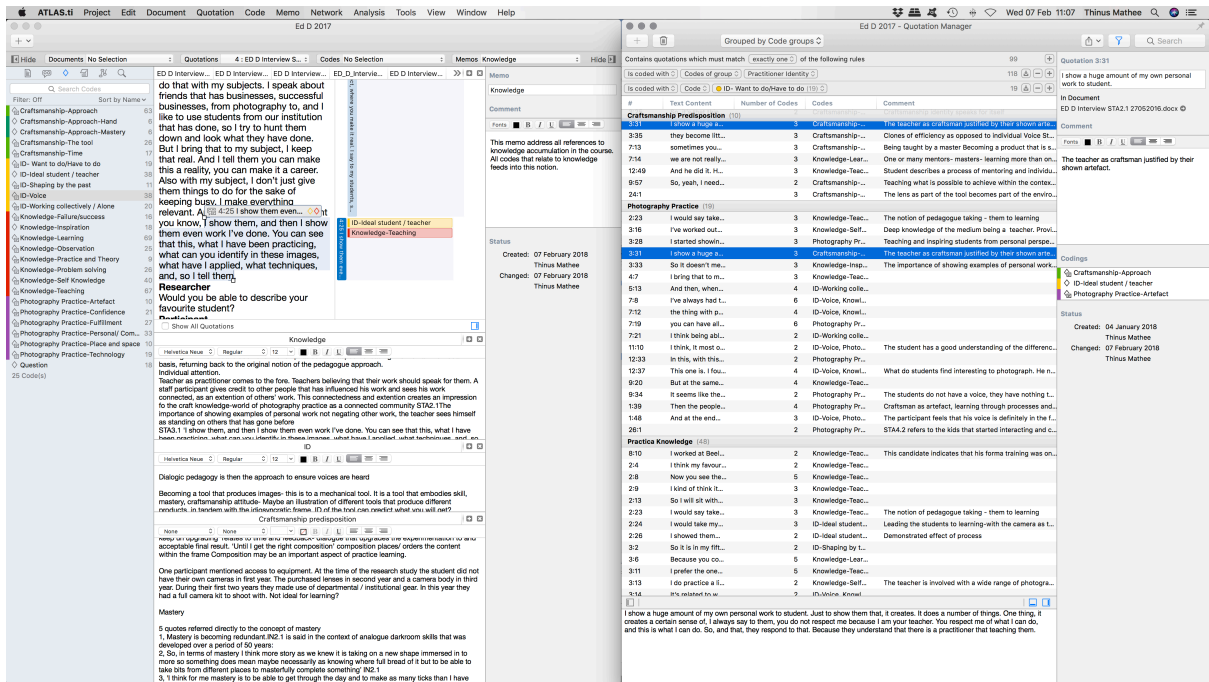
Figure 22: Code editing of the data in Atlas.ti data analysis software.

Code allocation revision was an important task to reduce code frequency and to break quotations into manageable coded portions. Figure 24 and 25 below illustrates the initial refining process.
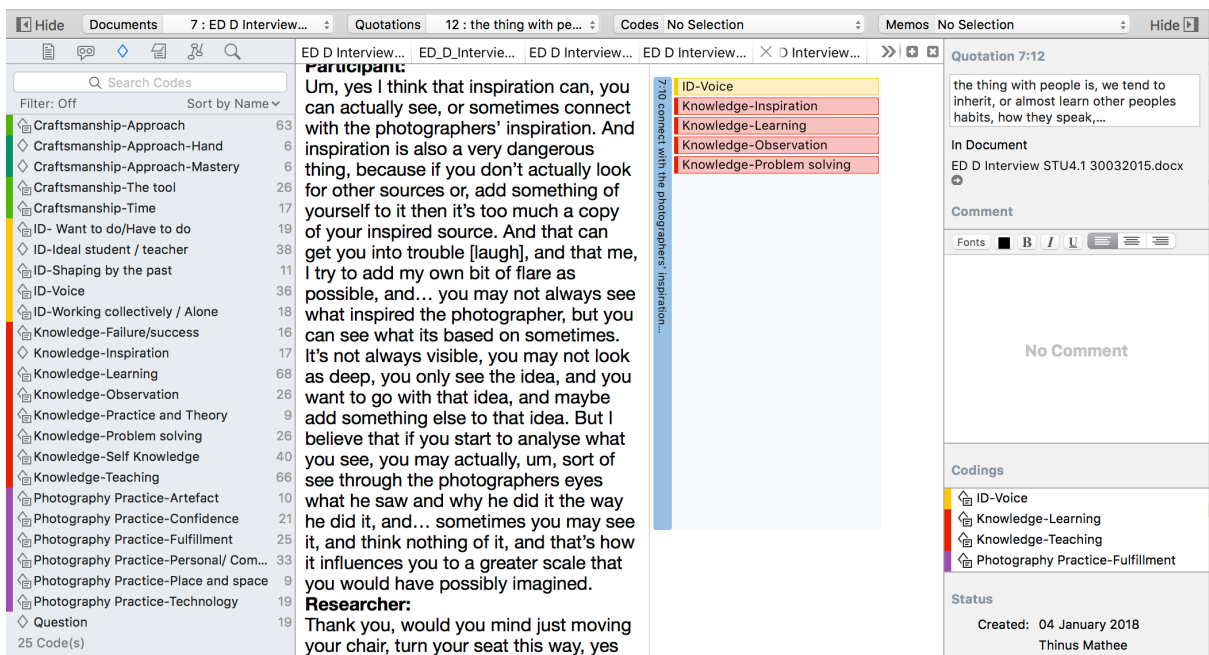
Figure 23: The initial coded quote from an interview transcript
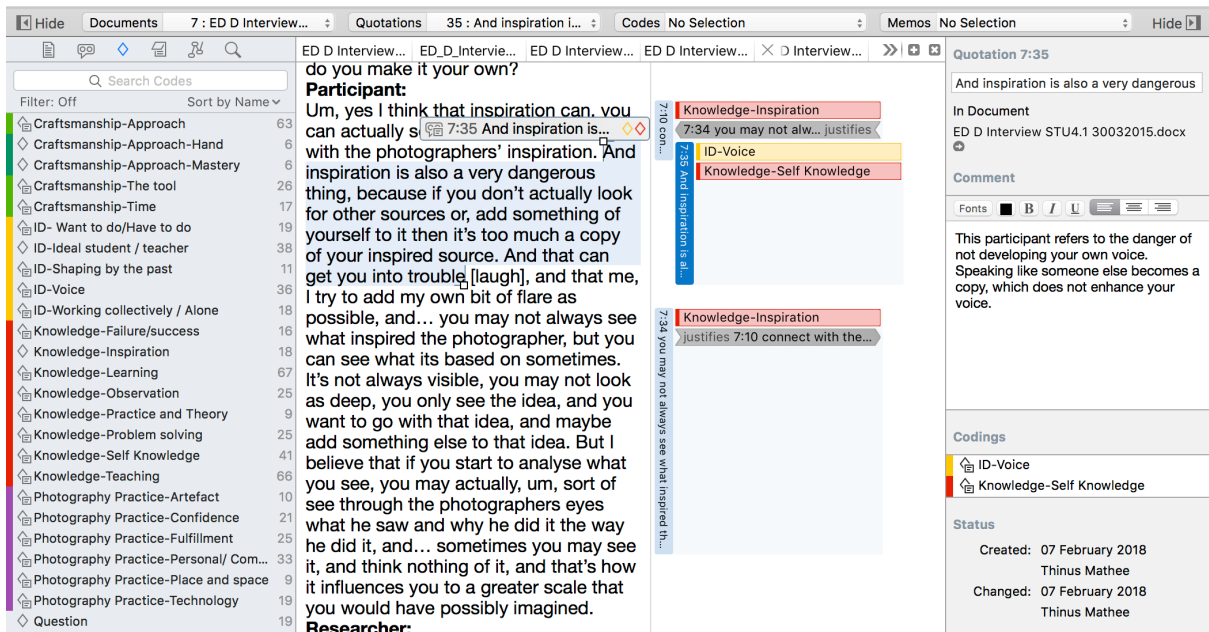
Figure 24: The refined coding application of the same transcript quote

Refining the codes also included making linkages between codes towards conceptual linkages between

codes. Figure 26 illustrates this refinement process.
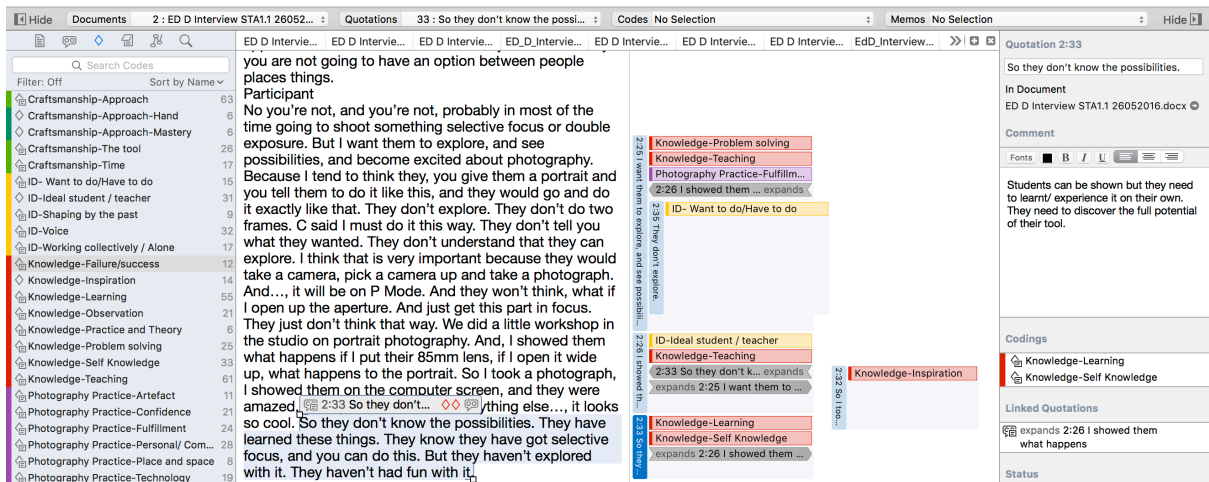
Figure 25: Refining linkages between codes using the Atlas.ti software.

In the illustrations above groupings are evident. I decided which codes are essential and grouped them

into categories (Löfgren, 2013) while dropping many of the initial codes (Cohen, et al., 2007, p. 560).

This process of reduction and linkages and classification of categories of importance will then become

the primary results of the research. The final categorisation process eliminated first code groupings.

Related codes were combined under representative and new code names. By doing this, I attempted to

find more fluid synergy between broader code representations as another attempt to simplify complexity through re-organisation.

Conceptually similar codes were combined across categories to facilitate coherence when addressing a specific concept. An example of this was two Time codes, one allocated under photography practice, and another allocated under Craftsmanship. I decided to have one code allocated to the notion of time and would situate this code under Craftsmanship Predisposition because in line with literature associations.

Another example is the final code Learning under the category of Practice Knowledge. Initially, I identified learning as a separate code. I also coded learning associations under codes such as Assessment, Problem Solving, Continuous Learning, Inspiration and Learning from Example. I decided to establish the code group Practice Knowledge with learning as a code and combined the mentioned associated codes under Learning. This combination resulted in a code with a frequency of 112. In the refinement process described previously, I reduced the Learning code to 48 quotation references.

The result of the second cycle of coding and categorising is illustrated in the table below.

Code grouping	Code definition	Code connections
Craftsmanship Predisposition		
Craftsmanship Approach, 62	This code addresses the association that participants make with the notion of craftsmanship. Craftsmanship involves a process that includes planning, execution that sometimes rely on steps which follow one another to achieve the desired excellence.	The Tool, Mastery, Hand **Photography Practice-** Fulfilment, Technology **Knowledge**-Self Knowledge, Teaching, Learning
Hand, 15	This code identifies the association of the hand with the term craftsman	Time, The Tool, Approach
Mastery, 31	Mastery represents the masterful pursuit of practice from a basis of appropriate skill, which is done in an attitude of appreciation for the overall process.	Approach, Time

Code grouping	Code definition	Code connections
The tool, 24	This code represents associations practitioners makes with the tool.	
Time, 18	This code represents the notion of time. While learning a creative practice or practising to best of one's ability.	Process Skill Mastery
Code grouping	**Code definition**	**Code connections**
Photography Practice		
Technology, 19	This code addresses the relationship between the old and new ways of doing things in photography. It includes technology, adapting older approaches to photography making to the digital process	**Craftsmanship Predisposition**: The Tool, Approach
Artefact, 10	The value of the photograph as an object constructed by the photographer.	
Confidence, 21	This code represents an ability, or lack of, being confident, experimentation and risk-taking.	Voice, Artefact, Learning Self-knowing
Place and space, 8	This code represents the physical site and conceptual/inner space related to practice.	**Photography Practice**: Fulfilment
Fulfilment, 21	This code represents the enjoyment of photography practice.	**Photography Practice**: Place and space **Craftsmanship Predisposition**: Approach **Practice Knowledge**: Inspiration
Personal and Commercial, 25	Personal work is driven by personal vision whereas commercial work is done for a client with a specific need.	**Practitioner Identity**: Want to do/Have to do
Code grouping	**Code definition**	**Code connections**
Practice Knowledge		
Learning Inclination, 48	Learning as a code includes participation, interest, passion, or a lack thereof.	**Practice Knowledge**: Problem Solving, Failure/Success, Teaching, Observation, Inspiration **Craftsmanship Predisposition**: Time
Inspiration, 14	What inspires the maker, what provides the impetus to master something?	**Practice knowledge**: Self-Knowledge, Learning **Photography Practice**: Fulfilment
Observation, 19	Observational skills are essential for a photographer. Being aware of essential influences, opportunities.	**Practice Knowledge**: Learning

Self-Knowledge, 21	This code represents knowledge that is internalised by the participant as their own.	**Practice knowledge**: Inspiration, Failure/Success **Craftsmanship Discipline**: Approach
Failure/success, 11	This code represents the concept of failure or success in practice.	**Practice Knowledge**: Self Knowledge, Learning **Practitioner ID**: Want to do/ Have to do
Problem-solving, 23	This code represents problems that practitioners encounter while shooting, during planning or in post-processing. Problems can entail equipment failure, unfamiliar technology, subject issues, personal issues etc.	**Practice knowledge**: Learning
learning, 48	This code represents the desire to learn, even if it is not for a formal qualification. Discovering things for the sake of continuous improvement.	**Practice Knowledge**: Problem Solving, Failure/Success, Teaching, Observation, Inspiration **Craftsmanship Predisposition**: Time
Practice and Theory, 4	This code addresses the synergy/integration of practice and theory towards the improvement of photography practice.	
Code grouping	**Code definition**	**Code connections**
Practitioner Identity		
Want to do/ Have to do, 19	Who do we make for? Is it for the assessor, the client, the community of practice or for the self?	**Photography Practice**: Personal/ Commercial **Practice Knowledge**: Failure/ Success
Shaping by the past, 11	The process that shapes us into what we are at present can play an essential role in the way we do things or think about things presently.	
Voice, 36	The photographic artefact might embed the photographer's voice. Dialogic notions related to the practitioner and the image is also explored here.	
Ideal student/teacher, 31	What do participants describe as the ideal photography student and the ideal photography teacher?	

Working collectively/ Alone, 15	This code addresses preferences and associations to group interaction and doing things alone.	

Figure 26: Table of code categories with the represented codes and first code linkages

The table above indicates the second cycle code distribution under separate Code Categories. The number next to the code shows the new code frequency. The middle column contains the code description. The code connections in the column on the right is an initial process of links that are made between codes and categories for the final discussion section. The code connection will be elaborated on under discussion.

The data collection process that resulted in the graphic representation in this section is illustrated in the Gantt chart below. The Gantt chart also shows the iterative reflexive research process that I describe in the methodology section, which represents a concurrent process between the data collection and processing progression and the literature review, methodology and writing up progression.
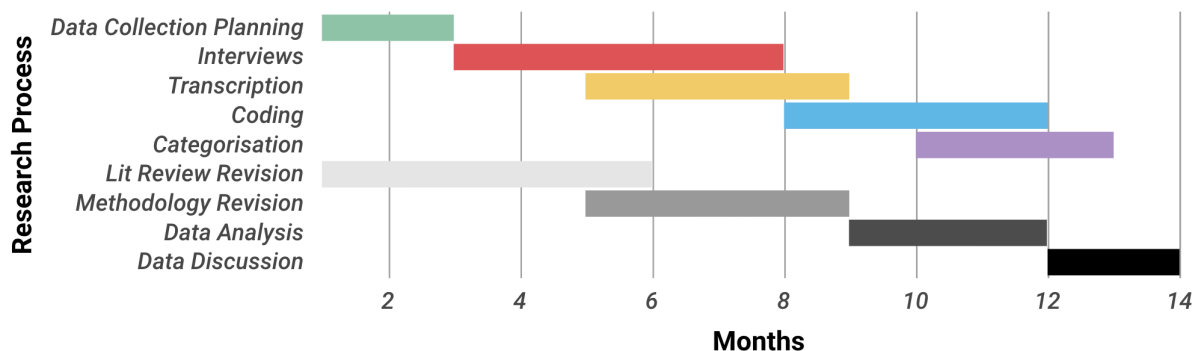
Figure 27: Gantt chart of data gathering process concurrent with writing process

The Gantt chart extracts a fourteen-month data collection process within a five-year research process that consisted of data collection, analysis, and discussion about the writing process on different parts of the thesis. The illustration highlights the synchronous process between the co-existing parts of my research process. Coursework laid the foundation for the research process illustrated in the Gantt Chart.

Another cycle of revision followed month fourteen. During this revision period the literature review and methodology chapters were edited to align the wordcount with the required convention.

4.4   Grouping Codes into Categories

Once I coded the data, I looked for similarity to what Saldaña refers to as the shapes of the data, "the sorts of things represented" (Saldaña, 2009, p. 11). This categorisation that consists of a "word or phrase describing a segment of [my] data that is explicit", is then further grouped as a short phrase that elicit some "tacit undercurrents" (Rossman & Rallis, 2017, p. 455).

I named the first group Craftsmanship Predisposition, the second Photography Practice, the third group Knowledge, a fourth group Identity. I had a fourth grouping named Question to track the open-ended questioning as interviews developed spontaneously during the conversations. The group naming placeholders changed as I re-evaluated the codes over time. The table below provides a quick view of the different codes and what they represent from the data.

Code group	Description
Craftsmanship Predisposition	This Code Group represents three subcodes that capture associations that participants made with the notion of craftsmanship. The subcodes that served this notion includes the **approach,** making process and related concepts such as hand and approach to making, **Time** and the possible effects of duration of a making process of an artefact making, The **Tool** personal associations with the craftsman's tool, mainly the camera.
Photography Practice	The Code Group consisted of six sub-codes that relate to photography practice specifically. The codes include concepts such as **Technology** that influence an approach on making; the **Artefact** as a construct within photography practice; **Confidence** influencers in the making process; **Experimentation/ Risk** associations with photography practice; **Personal/ Commercial** objectives that

	influence participants" approach to practice of photography; **Fulfilment** that experience in the process photography practice; and **Place and Space** influences and preferences in the photography making process.
Practice Knowledge	This Code Group is associated with knowledge construction of photography practice and consists of eight codes. These codes include **Failure/ Success** as a construct related to the teaching approach and leaning perception; **Inspiration** that motivates participants in their practice; **Learning** as a personal attitude and approach to knowing; **Observation** denoting an awareness of aspects that could influence the practice of photography; **Practice and Theory** connections and perceptions as it relates to photography practice; **Problem Solving** association related to photography practice; **Self-Knowledge** as personal knowledge appropriation and **Teaching** as a process of learning initiation.
Practitioner Identity	This Code Group represents four codes about influences towards and perceptions of the persona of the photographer as the practitioner. Codes that support this group includes **What to/ Have to** that is related to the motivation for practice; the **Ideal Student/ Teacher** from the perspective of participants; **Shaping by the past** represents the influences on the practitioner of experiences and time; **Voice** as dialogue related to command of the photographer through the artefact and command of practitioner process; **Working collectively/ Alone** refers to practitioner preference in the process of making.

Figure 28: Code groups that represented the categories made up of unique individual codes.

The illustration below visualises the value distribution between the Code Categories concerning code occurrences in each category.
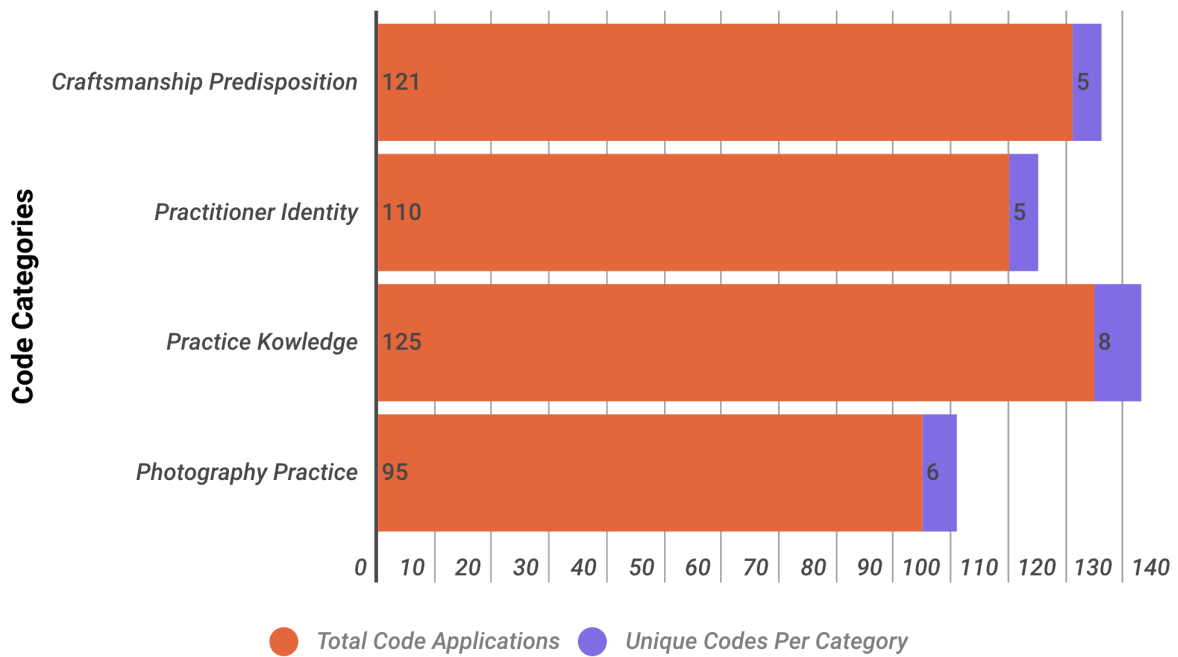
Figure 29: Final Iteration Results of Code Categories, Total Code Application Per Category and Number of Unique Codes Per Category

The code occurrences are made up of some category-specific codes, indicated in the purple section of the stacked bar chart. The category specific codes resulted from numerous codes that were collapsed into codes that represented responses more concisely. The general code distribution across the code group categories evened out, ranging from 95 to 121 codes per category. Initially, I grouped professional practice and business-related comments under a separate group. During the process of continual reworking of the code's associations, I became more research question focussed and emotionally detached from code importance. This process helped to eliminate less relevant codes while looking at the data more neutrally. The industry related codes were surprisingly few and were eventually combined unto the Personal/ Commercial code within the Photography Practice category.

The categorisation of codes attempted to group associates code concepts under a representative idea. I intentionally named the categories very descriptively as opposed to vague, abstract placeholders.

5   Analysis and Discussion

The object of this research is an understanding of photography practice pedagogy. As the research instrument, my development as a researcher, practitioner and teacher makes me part of the object of the research (Alvesson & Sköldberg, 2018). A theoretical understanding pursued in the literature review of concepts constitute the idea of photography, its practice, the practice as a craft, and the teaching context and approach. This broad understanding was attained through a similar reflexive strategy between associated. The reflexive approach laid the foundation for data collection and interpretation. Data was collected through an interview strategy that was conducted with photography students, photography staff and photography professionals about their experiences with the teaching and learning of photography practice. The interpretation of data went through various iterations during the data collection phase, coding process, categorisation and theming and analysis.

Interviews were transcribed and uploaded into Atlas.ti, a research data management software tool, to manage the coding, categorisation, and theming of the interview responses.

The data analysis process in the research started earlier on during the collection, coding and categorisation stage in the primary research process. Wellington (2000) refers to this early engagement as "data reduction" (p. 134). During the data reduction phase, I attempted a visual display (p. 134) of my application of a data collection method and the data organisation during the coding process. An initial stage of sorting the data into initial category groups was started to describe what could emerge from the coding and initial categorisation process.

5.1   From Categories to Themes

The "data-driven" and abductive approach to this research analysis (Braun & Clarke, 2006) focus on a "more detailed account" of aspects that relate to the research question. My research question seeks influencing pedagogic factors that practitioner participants identify during interviews. Importantly, and agreeing with Braun and Clarke (2006), my research question and questions asked during the interview

are not related directly to one another or the final themes that will guide the analysis process (pp. 85-86). Categories and themes are therefore dependant on what participants expressed at the time and represented connections between identified codes that inform possible factors.

Braun and Clark describe this form of analysis as "latent thematic analysis" that requires interpretive engagement and goes beyond description and "already theorised" (Braun & Clarke, 2006, p. 84). This form of analysis is further described as "constructionist", which complements the paradigm orientation of this research.

Braun and Clarke (2006) suggest six possible phases (p. 87) that describes the "recursive" and non-linear process (p. 86) in the figure below.

Phase	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Figure 30: Phases of the thematic analysis (Reprinted with permission from Braun & Clarke, 2006, p. 87)

What they call themes in point three, I referred to as categories before identifying themes. From the established categories I will proceed to the revision (point 4) and naming of the final themes as described in point five in Figure 49.

5.2   Identifying themes

When I reassessed the categories as a process towards the identification of themes, I realised that three of the categories address the notion of practice. When looking at the three categories; *Craftsmanship Disposition*, *Practice Knowledge* and *Photography Practice* I noticed two categories representing

practice as an activity. *Craftsmanship Disposition* represents references to the notion of craftsmanship as an approach to making and *Photography Practice* represents references to participant views of photography practice. These two categories, for me, informed photography practice as a craft and could be combined to represent a theme that describes the act of photography making within this research context.

Practice Knowledge as a category represents responses related to photography knowledge construction from participants. This category represented the broader notion of practice knowledge acquisition within the field of photography. I decided to convert this category into a theme for the research.

A third theme would subsume the category *Practitioner Identity*. *Practitioner Identity* represented views of the photography practitioner persona. There was evidence in the data of specific identity shaping by the educational process. This shaping seems to be an essential outcome of the educational process, specifically the Emic and Etic dimensions that that influences the practicing photographer. *Practitioner Identity* seems to be shaped by practitioner actions as well as inner knowledge. The inner and outer characteristics could then be shaped by *Practice knowledge* and a combination of *Craftsmanship Disposition* and *Photography Practice*.

In the figure below, I describe the formation of three themes from the four categories and the relationship, in definition form, between the themes. The concept of formation is used to influence the themes. In this sense I use the term craft as a shaping descriptor and a theme linking device. Craft, or Crafting, in this sense, denotes a careful and intentional consideration of the action.

Category	Theme	Theme Definition
Craftsmanship Disposition Photography Practice	The Craft of Photography Practice	This theme constitutes participant responses related to the practice characteristics of photography as a unique creative medium. The context of the responses is within the ambit of Higher Education towards professional photography practice as a career.

Practice Knowledge	Crafting Photography Practice Knowledge	This theme constitutes participant responses related to the way learning and teaching of photography practice are constructed in general and within a specific educational setting.
Practitioner Identity	Crafting Practitioner Identity	This theme explores the created identity of a photographer over time. This photographer identity is shaped by the nature of the creative medium and the practice knowledge of this medium that is internalised over time.

Figure 31: From Categories to Themes

I used Braun and Clarks" (2013) theme development questions, adapted in table form, to refine the development of the themes in this research. One of the important reasons for this process is to construct a "central organising concept" that could assist in theme clarification (Braun & Clarke, 2013, p. 226)

In the table below, I extracted the core ideas that inform the central organising concepts for each theme.

Research Theme	Central Organising Idea
The Craft of Photography Practice	Ideal character of the photographic imaging process.
Crafting Photography Practice Knowledge	Thoughtful assimilation of photography practice knowledge.
Crafting Practitioner Identity	Purposeful photography practitioner identity development.

Figure 32: Central ideas for each theme.

There seems to be a definite interconnected relationship between the three identified themes for this research. The theme *Crafting Practitioner Identity* appears to be supported and nourished by the other two themes, *The Craft of Photography Practice* and *Crafting Practice Knowledge*.

The research question of this study seeks factors that can influence photography practice pedagogy. I would argue that the photography pedagogue (teacher) leads the student towards, and in, a

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photography practice lifeworld. Self-existence, for the prospective practitioner in this practice lifeworld is possible through two factors. Firstly, the practitioner-denizen understands (accepts) the nature of this practice lifeworld. Secondly, the practitioner-denizen assimilates practice as knowledge in a way that can becomes a practitioner expression of this lifeworld.

In Figure 52 below, I attempt to visualise the interconnected nature of the three themes, and how practitioner identity feeds off the nature of the character of the practice medium and knowledge of the practice medium. The dotted inner and outline depict the openness to outside influences on the themes. The inner dotted line indicates a soft border between the themes, *The Craft of Photography Practice* and *Crafting Photography Practice Knowledge*. These to themes can be seen as shapers in the *Crafting of Practitioner Identity*, which is situated centrally. The centrality of the theme *Crafting Practitioner Identity* positions it as the purpose of pedagogy as understood within this research. The pedagogical focus of this research addresses the importance of allowing individual shaping to take place instead of curriculum clones of an educational process. The arrows in the outer thematic ring indicate an interplay between these codes even though they are separate themes.
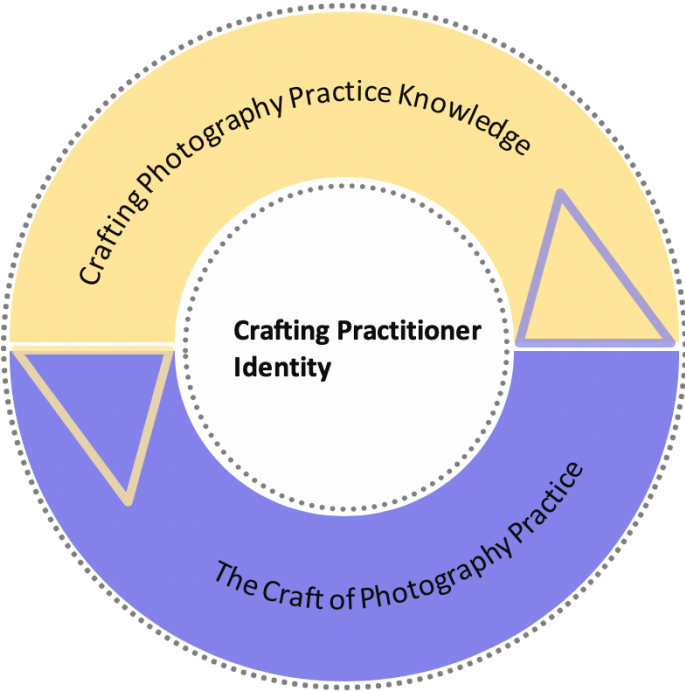
Figure 33: The relationship between themes of this research

The illustration above illustrates the three components that I have identified which will represent, in heading form, the data contents that will address factors sought by the research question for this research project. In this context, I would like to associate the constructed needs with the three "ultimate" needs for the adult learner, identified by Knowles et al. (2005).

The constructed themes for this research	Ultimate needs of the adult learner
The Craft of Photography Practice	"ultimate need of individuals… to mature" [in the nature of their medium]
Crafting Photography Practice Knowledge	"knowledge and skills that they will need to live adequately for the rest of their lives" [Personal practice knowledge]
Crafting Practitioner Identity	"complete self-identity through the development of their full potentials"

Figure 34: A relation between research themes and the "ultimate need of the adult learner" extracted from (Knowles, et al., 2005, pp. 23-24)

From the table above, it is becoming clear that the themes explore the essential requirement of a successful photography practice pedagogy, holistically. This holism indicates some crosstalk between the themes that I suggest as factors from the interview data collected from students, staff and professional photography media participants.

5.3 Analysis and Discussion

In the analysis and discussion, I will tell the story of my data in a conceptual an interpretive manner (Braun & Clarke, 2013). I will specifically look for the underlying meanings (p. 252) within the data to close the research question. Analysis and discussion in this research will be integrated to present a comprehensive story of the analysis "as it happens" (p. 258). The themes are distinctive and separate but individually connected to contribute to an overall pattern of the analysis. The discussion of the themes is not done according to a predetermined suggestion form research literature.

An attempt is made to introduce the nature of the photography medium, which is followed by the process of knowing within this practice field. The last section of the discussion will attempt to fuse the

nature and practice knowledge of the medium with an understanding of the resulting photographer-identity that develops from that process.

5.4   The Craft of Photography Practice

This theme explores the nature of this medium that has impacted on the education beginnings of this creative practice. The craft required at the inception of the process of photography practice was referred to as "miraculous" (Newhall, 1989, p. 23).

Currently, the rendering of reality in "perfect tone and colour" is now a possible with digital smartphone devices. The technological developments might have an influence on the mystique that photography practice once had. An industry participant comments:

> "Digital technology has been wonderful for the photographic industry in good ways and very bad ways as well. It's democratised the medium so everybody can take photographs, which is very beautiful. It is the first time in humankind's history that everybody can take a picture and be creative" (IND2.1, 2017).

The exclusivity of photography practice has now been merged with everyday digital technology for the everyday person.

However, an interest in photography practice as a profession and craft seems to connect with individuals in a personal manner. Photography students, teachers and professional practitioner participants were adamant that they made a special connection with the nature of the photography medium:

> "I love it. I appreciate it" (IND2.1, 2017), "I love teasing out the relationships between an individual practitioner and the work that he produced" (STA2.1, 2016), "I developed, a love for photography" (IND4.1, 2015), "I love that I'm out there creating stuff" (STU2.4.1, 2016), "Goes with like passion and love. (...). If you have passion for it. And if you're willing to, to express your own voice or do whatever you want to do and get paid for it" (STU1.3.1, 2016)," I go to township, and shoot what is happening, (...) in the township, but then on weekends, I love to shoot more" (STU2.2, 2016).

An emotional connection with the photography medium as a craft more so than the educational home, or workshop, is evident in these responses. In this sense, the educational workshop provides the place and space where such an appreciation could be forged. Sennett (2008) refers to the setting of the

traditional craftsman, when he states that a "good home" as an "image" of the "workshop" is "misleading" (p. 53).

The medieval workshop-home did not follow the rules of a modern family guided by love" (2008, p. 53). The love for the craft practice, in this context, creates a dwelling space for practitioner comfort. The physical space could then be associated to where this appreciation for the crafts is forged between the tools and anvil, academic. The pursuit of craftsmanship values, in this research focus, seems to rely on the characteristics of photographic practice before a connection can be made between practitioners and their practice.

It is evident from the participant responses that this "love" relationship is between practice and practitioner, not necessarily the educational workshop place. Our HE educational space has adopted a more industrial nature with industry related processes. Related to this is the Fordist, factory mentality that could be a threat to the essence and impact that the workshop-type environment could play in the development of an individual photography practitioner. I will posit that the physical "workshop" environment, and its possible negative effect on photography practice, can be pushed into the background. This is possible if practitioner participants" focus is *on the practice* and not on the environment in which this practice is performed.

Sennett (2008) prefers the term "productive space" as a preferred substitute for the term workshop (p. 54). He furthermore relates this productive space to "issues of authority", which he associates with the antonym autonomy (2008, p. 54). The productive space, then, fosters "self-sufficing work conducted without the interference of another" (2008, p. 54).He sees the "productive space" as an:

> "(…) austere definition [that] focusses not only on who commands and who obeys in work but also on skills as a source of the legitimacy of command or the dignity of obedience. In a workshop, the skills of the master can earn him or her the right to command, and learn from and absorbing those skills can dignify the apprentice or journeyman's obedience. In principle" (Sennett, 2008, p. 54).

It is evident then that the notion of authority is not associated with the physical space. Authority is also not associated with the individual, but more specifically the *practice ability of the individual*, and therefore *practice itself*. The nature of practice as authority seems to surface in connected ways in the data. Resultant student practitioner authority is supposed to manifest through the skills they achieve during their academic course. These skills are linked to the capabilities of the teachers, or masters in the context of craftsmanship.

Furthermore, authority is also linked to the educational institution demanding results. The teacher, as an employee of this institution, becomes the face of the institution to the student. A successful teacher seems to be a successful employee that meets the macro-institutional requirements more so than what the practice authority of the discipline requires.

> "(…) eventually we are this institution. There (…) are directives of how many, what percentage of students must pass (…). (…) if that's not achieved, there are problems" (STU4.1, 2015).

This "directive" seems to put a strain on providing an environment where students can build the necessary confidence that they will need in the industry.

Even though teachers are aware of institutional demands, the authority of practice, which is manifested through the master, prevails to some extent. Students do not seem to submit work to the institution, in this regard.

> "we fear when we have to submit your images [to teachers]" (STU3.4.1, 2016).

The photography work is submitted to practitioners that seem to guard a practice orthodoxy within the confines of institutional demands for pass rate statistics.

Students seem to have a clear conception of an ideal teacher. "I want someone that has experience. I want someone that knows what they're talking about" (STU3.4.1, 2016). The desire an authoritative practice voice to guide them. However, they don't want an authority that simply tells them what to do. "[Y]ou have to give me the chance also to go in what I like, and see how it works" (STU3.4.1, 2016).

"[S]ometimes you want to reach a certain goal, and sometimes you need some help to reach that goal" (STU4.1, 2015). The students want a teacher that is "not just going to brush it off and say it is not going to work" (STU3.4.1, 2016), even though the students "fear" the authority of that voice. Students need an authenticated practitioner-voice that asserts accurate directives within a practice ethos that they aspire to.

The authoritative guidance that students are seeking, then, seems to be linked to the practitioner in the teacher, as expressed earlier by a student participant. The student participants were sometimes brutally honest about the practitioner commitment of the teacher. They want to see "[s]omething that he has done this year" (STU2.2, 2016), [n]ot ten years ago actually" (STU2.2, 2016). It is noticeable that the desire to become a practitioner is imbued with respect and demand. A grasp of what the practitioner-idea is in the immediacy of the students" life-world seems important, for the student. The lifeworld of the teachers and industry practitioners have been constructed over extended time. A student does not have this practice-life experience, and to construct their practice-life, they need currency in the practice-life world they attain to. Master-authority for the student, I would posit, is a practice tradition made manifest though living examples in their immediate practice milieu.

Teacher responses to practice authority agreed with the idea that the work of the teacher should inspire students.

> "I firmly believe that if I am a practitioner and I am teaching people, they should be seeing my work" (STA2.1, 2016). "I show them (...) work I've done. You can see (...) what I have been practicing, what can you identify in these images, what have I applied, what techniques (...)" (STA3.1, 2016).

In showing students their work, teachers seem to show more than their just their images. What emerges is a *skilful practitioner image* that they want revealed through their practice.

Plato referred to this "ability to describe why he does what he does [as] one of the most important characteristics of craft" (Parry, 2009, p. 8). Skill, for photography teachers, seem to be an essential ingredient towards practice authority.

"(…) one needs to learn under a skilled person (…) that is willing to share the knowledge with you" (STA2.1, 2016).

Skill is an essential ingredient for the authoritative practitioner and could then be regarded as a major influencer for a creative practice pedagogy. I would posit that the skill referred to here goes beyond executing a technical recipe, successfully. For me, it refers to a practitioner-skill that authenticates the practitioner as a practitioner.

The introduction of new specialist technical skillsets in the department has put tremendous pressures on teacher authentication. A teacher participant affirms that the motion capture skillset is "(…) still an unknown in our department. (…) we're still learning. So, yeah, I need to be able to show students what they need to try aim for" (STA4.1, 2017). This statement implies that the strength of practice teaching ensues from a practitioner authority, implying that the traditional photographer authority, which implicates an identity, is being challenged by a "motion capture" (STA4.1, 2017) authority. The motion capture authority referred to here, does not just suggest technical video skill ability. The motion capture practice field relies on a combination of motion shots, sound recording and editing that results in a film-like story, instead of a static image.

Teacher practitioners have realised the importance of this motion skill that current digital photography capturing technology made possible and that the notion of a practitioner authority is related to adaptability and open to technological changes. Furthermore, practitioner authority seems to allow for self-teaching, positioning new skills within current skillsets, towards practice-authority. Konza and Main (2015) refers to this self-improvement as "professional learning" when "ongoing learning both individually and collectively" takes place in the teaching context (p. 11).

A teacher participant stated that "(…) I'm still teaching myself [motion capture]" (STA4.1, 2017), which is in contrast with the comment, "(…) we're still learning [motion capture]" (STA4.1, 2017). This response was not probed further in the interview, but in reading the interview transcript numerous times, I noticed the noteworthy use of "learning" and "teaching". From the literature, it is evident that the use

of these two notions suggest the idea of pedagogy as a conceptual construct of teaching and learning (Bernstein, 2003; Bertrand & Houssaye, 1999; Maviglia, 2016; van Manen, 1977).

The teacher participant (STA4.1, 2017) that was referred to above, implies that she is learning the skillsets, and teaching the skillsets to herself, in an integrated and parallel manner. As a teacher-practitioner, she has become the teaching authority of her own practice-leaning. This process of teaching and learning has to result in authoritative knowledge that she has to teach with practice-authority, "that lives by example" (van Manen, 1977, p. xii), to her students.

Emergent from the research data, I would suggest that photography practitioner teachers seem to become their own pedagogue within a technologically complex and constantly changing discipline. Furthermore, I would posit that this the nature of the self-pedagogue could transfer to students as a normative mode of assimilating as a photographer.

Related to this notion of change within a practice discipline, and coping with new technologies in creative practice education, is what I will refer to as the analogue-digital challenge. This challenge, I would posit, is most relevant in a teaching environment where existing staff were grounded in analogue processes in their student-apprentice life. I would flag this scenario as historically situated, unique, and in fast decline. The new cohort of photography staff come from a digital-only education era. This digital era resulted in theoretical analogue knowledge, at the second hand, as opposed to first-hand practice knowledge. At best, this knowledge would position the photographer with digital photography knowledge that is theoretically informed by historic analogue references.

All the teachers and industry participants interviewed were introduced to photography practice when digital photography did not exist. Contrastingly, student participants concept of photography practice is situated solely within the digital domain. Whereas analogue photography practice was a personal practice experience for teachers and industry participants, it is merely a theoretical concept for students. These theoretical concepts are discussed in class as a historical reference and is not a current

professional practice. I would posit that the technological mode of photography practice (analogue/digital) influenced the pedagogic orientation in the photography education environment.

The nature of the photography medium could then be influenced by the technological orientation of the medium. This orientation should then influence the "language" of the medium, which influences the pedagogic nature, dialogically. I would argue that, in the educational context, the digital nature of the photography medium informs the related pedagogic nature with possibilities that are digitally connected to the medium. Such a digital connection, in this research context, is motion capture and the complexities that arise from this association.

Dialogically, pathways are formed to connect discipline fields with other discipline fields, and therefore pedagogies with other pedagogies. A nature for a photography-practice pedagogy could then be uniquely related to the nature of the practice.

This pedagogic language approach of what photography practice *is*, could be a key influence in how this photography practice is communicated pedagogically. Bernstein (2003) states that:

> "pedagogy defines what counts as a valid transmission of knowledge" (p. 159).

The validity of transmission could then be based on the values attached to what the nature of photography practice is. These values for teachers and practitioners could be embedded in analogue practice, whereas students only have digital photography practice as a reference from which to establish their photography practice value system. For one industry participant (IND2.1, 2017), "digital photography and working in a computer, for [him] (…), and for many people that [he] speak[s] to, has become an office job" (STA2.1, 2016). For him, the nature of digital is equated with the nature of an office job environment. This view, I would posit, is because of the participants" experience that enables a comparison between an analogue "reality" and a digital "reality". The data did not reveal any association of office to computer related image processing. Their reality is embedded in the digital computerised environment, with analogue only referenced as a historical practice.

The office, as a place of professional engagement, seems to agree with students that are only accustomed to digital photography practice where they spend hours in front of the computer. When I asked a student participant whether he would like to work with professionals, he responded:

> "I'd like to see the, the office site of photography. How well to run the office? Even though it's not an office on the office park. Maybe the home office" (STU2.2, 2016).

A final year student responded to a question probing her prospects, saying:

> "I don't see myself doing an office job, like, in terms (...) of the photography world" (STU3.4.1, 2016).

This student participant distinguishes between two offices, the stereotypical office and the photography *office*. The latter office denotes where photography work is done, a photography workshop, and for the student, mostly in front of a computer.

The computer studio space has also become a generic workshop space where students of different year groups occupy the venue at the same time. One would like to picture a scene where the different students work tirelessly under the watchful eye of the master craftsman. The reality is, that apart from dedicated workshops which are presented to dedicated class groups, the teachers move in an out of this venue when they do routine checks on individual progress. Teachers must juggle between contact time, research time and administration time. This system allows for the unsupervised time that could promote self-determined learning (Hase & Kenyon, 2007), instead of unproductive time for the student. Internet connectivity became a standard extension of the computer facility, making self-determined leaning a reality. The digital era might allow for a more productive learning experience if students are focused and interested in learning. A holistic view of the digital domain, and the effects that it has on teaching and learning, could be a factor that impacts on the way photography practice is taught and learned.

5.4.1   The need for a deep interest in photography practice

It is evident that a deep interest in photography practice is required to learn the nature of the medium.

A teacher participant agrees that students "got to have an interest, from the start" (STA3.1, 2016). He

tells his students to:

> "be honest with yourself. It's the first thing that you got to be, you got to be honest with yourself. And I say, sit down, and if it is not for you, if this isn't for you, there is nothing wrong with that" (STA3.1, 2016).

This notion of honesty will be discussed again under identity. A creative practice, or photography

practice in this research, reveals the practitioner character in an unavoidable manner. This attribute of

creative practice seems too revealing for students that are not deeply interested in the practice. An

interested participant does not mind this public rendering of the self, in an honest manner. Honesty

seems to be reciprocal, as one student commented on what she appreciates in a teacher; "(...) it is a

mix of being honest, and [the teacher] pushing myself (...)" (STU3.4.1, 2016).

The idea of an honest external force that encourages internal honesty seems normal in photography

practice. There is a need in the education of creative practice for this "pushing" which can contrast with

the theoretical understanding from the term "education", meaning drawing out. It is then evident that

the crafting of photography practice requires an educational practice approach that encourages some

aggressive practice leading as a form of pushing or applying positive pressure.

Identifying an honest external source of inspiration will then require experience within the domain of

photography practice. The eagerness to be photographically pushed, combined with the easy to access

online availability of external unvetted photography "leading", is then problematic.

Internet connectivity provides immediate access to visual resources and teaching and learning support.

This form of immediate access is not always promoted by teachers that want to influence the students

with "good images". A teacher responds,

> "I think that is a, bit of a problem at this stage because they look at images on the internet, (…) they'll type in selective focus on Google images. And then, what comes up, they think are good images" (STA1.1, 2016).

The photography teacher relies on masterful images of the past and present to inspire their students. There is an indication that the images that teachers select are perceived by the students as current good practice, in line with the earlier indications of practitioner currency. Once this respect is established students trust the judgment of teachers showing other photographers" work and critiquing the student project work. Respect for teacher judgement is established firstly on the teachers" own photography work.

It could then be said that a dialogical pedagogy, in relation to the previously discussed pedagogic nature, should not exclude any dialogic participants in this process of practice learning and teaching. In this sense, a good dialogic pedagogical practice includes inspirational photography practice. The inclusion of *qualified practice voices* in this dialogue seems pertinent.

Teacher practitioners seem to adhere to the same inspirational pushing and leading from a selected practitioner fraternity. A teacher comments on the connection between his images and photographers that has inspired him through time:

> "I can show them examples of what I have done, and how I get to that outcome. So, (…) other practitioners is very important. I wear the people that has influenced me as badges on my shoulder" (STA2.1, 2016).

The inspirational influences mentioned in the above interview quotation took place over a period of twenty years. I would posit that inspirational time becomes a factor in the pedagogic approach that is nurtured by the teacher in the educational environment. There seems to be an inspirational container within the pedagogue, which is continuously filled through inspirational dialogue with the visual photography world.

Inspirational dialogue for the student could then become a crucial component within the photography practice pedagogy. Inspiration seems to require a porous learning capacity from willing respondents. If

inspirational-time is then a factor for inspirational practice learning, the time available to the student becomes crucial.

For the student, time to learn is confined to the duration of the course. The realisation of this limited time seems to create a student expectation for "someone [teacher] that knows what they are talking about" (STU3.4.1, 2016). I would posit that a dialogic pedagogy requires a photographic practice nature that encourages *inspirational dialogic learning*.

For Greene (2012), apprenticeship could be like the child's "hunger to learn" when they "naturally feel inferior" and "[t]heir minds are completely open" (p. 74). According to Green, humans retain "physical traits of immaturity" "well into (…) adult years" and has a "remarkable ability to return to a childlike spirit" (2012, p. 74). Teachers realise that viewing inspirational images should be followed by playful practice action to activate personal student-inspiration.

This form of play within creative practice academia will stimulate students to produce images "that they have not done before" (STA1.1, 2016). "So, sometimes they don't see the possibilities" (STA1.1, 2016). A teacher participant is of the view of a current project is that she wants them "to fun with this project" to:

> "(…) develop creativity, seeing things, seeing the world a little bit differently (…) and playing. They must have fun [and] not see it as a chore" (STA1.1, 2016).

It is evident that inspirational learning arises from a process of self-discovery and in a teaching environment that is inspirational. The above statement might also imply that teachers are trying to direct students away from instructionism found in traditional scholastic education, and towards self-discovery, using andragogical and heutagogical educational principles. There is an indication that *a freedom to engage (play)* could lead to this discovery that will lead to individual practitioner status.

An industry participant seems to be adamant that creative practice time should be complemented by an element of constructive play, which also accommodates mistakes.

> "You've got to spend time in making mistakes and trying this out and trying that out. (…) you learn through play, and I'm a firm believer in play (…). It's free play that you build up of passion or something, and if (…) you don't enjoy doing it, it's a very big likelihood that you'll stop doing it at some stage" (IND2.1, 2017).

The educational system with all its corporate-like rules and regulations seems to have become a serious place where play is not the default learning mode. Referencing Huizinga, Sennett states that "the rigours of the Industrial Revolution caused adults to put away their toys; modern work is ""desperately serious"" (Sennett, 2008, p. 271). Huizinga, according to Sennett, believed that "formal gravity" is "equally important" (2008, p. 271) . It was the anthropologist Clifford Geertz who then "coined the phrase "deep play" (2008, p. 271), which I would like to relate to deep learning that Gravett (2005, p. 19) relates to "mindful" and "meaningful-learning". This form of deep learning in practice, I would posit, happens when practitioner learners can find the equilibrium between progressing their craft practice and a liberty to discover.

According to teacher interviews, not all photography student participants have made an informed choice that allows an attitude of discovery in their photography studies. Despite this lack of participation, staff seem to be under institutional pressure to continuously encourage interest. The first-year students "that is not hundred percent convinced of the [photography] course" (…) "can frustrate some people [teachers] if they are not used to that" (STA3.1, 2016). According to a first-year teacher, "you are not working with a second or third year [student] that wants to be here" (STA3.1, 2016).

There seems to be a marked difference in general learning interest between students taught at larger public and private institutions and smaller private teaching workshops. The smaller private teaching workshops are normally for amateurs or professionals that commit through a participation fee. An industry participant who taught photography at larger public and private institutions, compares the interest of students that he taught at formal institutions to current smaller groups of students that he teaches privately:

> "this [small workshop] environment for me is very beautiful" (IND2.1, 2017). "There is a certain pleasure or satisfaction in getting a new person giving them new knowledge and to see how it enlightens them when they walk out and (…) take that knowledge with them" (IND2.1, 2017).

For me, the more intimate teaching and learning environment invokes the idea of the craftsman workshop. The traditional craftsman workshop treated the apprentice as family (Sennett, 2008). I would posit that the nature of the craft practice was protected within this family context. The industrial revolution opened the doors of the family craftsman culture, introducing an impersonal fragmentation of control over the completed craft practice process (Gauntlett, 2011; Giroux, 1997; Vetoshkina, 2013). I would posit that the formal educational organisation could be such a fragmenting influence to craft-natured educational programmes.

A teacher participant relates this lack personal commitment to professionalism and being sponsored through bursaries.

> "(…) they are not committed in a professional sense. (…) it has got to do with money, I think, with students not having to actually, physically pay (…). I have taught outside workshops for people (…) I charge them a certain fee, they all pay attention" (STA3.1, 2016).

Teacher participants, through individual experience, realise that a specific environment is needed to craft photography as a creative practice. Independently, and as an unwritten rule, they seem to acknowledge the importance of bringing the student into contact with *personal practice learning*.

> "I prefer the one to one [teaching] situation, because I can assist the student specifically in giving him just the knowledges (…) that might help him (STA3.1, 2016).

Another teacher participant agrees that the student group project launch, alone, proves inadequate.

"They get very excited with a launch" (STA1.1, 2016):

> "I kind of think it goes into the one ear and out of the other ear (…) they see the possibilities, and the moment they go out into the field, it's like they forget everything (…)" (STA1.1, 2016).

The same teacher participant is of the opinion that "(…) if you talk to a group it is a general discussion, and once you work with the student one-on-one, you focus more on their project, and their outcome, instead of the whole groups" outcome" (STA1.1, 2016).

Creative practice learning requires a deep personal connection between the practice and the practitioner. Pedagogy, in a creative practice context, and as an educational construct revert to the initial intent of being a practitioner-practitioner dialogue, instead of a teacher-to-student(s) monologue.

The importance of individual learning should then be flagged within the sizeable institutional environment where subject and course pass rates could predominate the personal learning objectives, as is mostly the case with scholastic pedagogical strategies.

It is clear from literature that the individual learner, within an educational system, was one of the central reasons for the development of concepts such as Andragogy (Knowles, 1970), Geragogy (Klein, 2014), Humanagogy (Knudson, 1979) and Metagogy (Strohschen & Elazier, 2019). Heutagogy (Hase & Kenyon, 2007), is presented as the current and concluding notion that directs education activity towards self-determinism. Paradoxically, this Heutagogical conclusion, to resist educational form, could separate the student from the original pedagogue intent. I would argue that an attempt towards student democracy could separate the student from the nature of the medium in a creative practice learning environment. The nature of the medium, referred to here, would be the practice nature that is exemplified in the practitioner-pedagogue as teacher. Furthermore, I would suggest that individuation in photography practice is then shaped through close practice dialogue interaction to allow the nature of the medium to shape the individual.

Interestingly, there seems to be unique individual input into the photography practice. Students seem to rely on input but are acutely aware of a personal perspective that develops from this input. I will suggest the practice nature fabric consists of separate practice nature strands that patterns individual photography practice.

An interesting observation from the contact with individual teacher participants during the data collection event was that of teacher individuality. Photography education, as a technically challenging discipline, does not create generic teaching formulae that all teachers adhere to. Teachers accommodate individual student inspiration, which seems to be based on the teachers" individual practice reality.

A senior student pointed out that "you can't always, (...) be inspired the same way as another person is" (STU4.1, 2015). Inspiration seems to be an individual matter. Sennett (2008) refers to "the mystery of inspiration" (p. 290) and posits that "intuitive leaps" take place when we reflect on "the actions of [our hands] or in the use of tools" (Sennett, 2008). Gauntlett (2011) refers to Mihaly Csikszentmihalyi as one of the best-known creativity researchers (p. 13). Csikszentmihalyi (2014) interviewed some of the most prolific creative minds in his time and found that most of them rephrased the saying that "Creativity is 99% perspiration and 1% inspiration" (p. 75). Even though inspiration is regarded as important, a student participant stated that it "can be a very dangerous thing (…) if you don't (…) add something of yourself (…) [which] then is too much a copy of your inspired source" (STU4.1, 2015).

Considering the above, practitioner inspiration seems to move beyond the excitement of viewing photography practitioners" inspirational images. The notion of "danger" (STU4.1, 2015), for me, from the previous student response, could then be unfitting inspiration, as superficial excitement, instead of accessing the inspirational nature of the source. I would posit that inspiration in this sense could be a manner of connecting through practice-dialoguing with the inspirational nature of the inspirational practitioner.

It is noticeable that the process of "connecting", through practice-dialogue, requires effort and risk-taking as the practitioner discovers by "workmanship of risk" (Pye, 1968). A student participant perceives "inspiration [as] a big part of creating" (STU4.1, 2015). Teachers are aware of the importance of inspiration. They seem compelled to maximise inspirational process-time within the relatively short period of academic practice engagement.

This process of becoming inspired seem to encourage an approach that is described by a student as "hard work" (STU3.4.1, 2016). An industry participant, who also teaches creative traditional techniques, indicated that interested course participants sometime withdraw because "they realise that there is physical hard work involved, and we're not in control as much" (IND2.1, 2017). The process of finding

creative inspiration seem to require concerted effort and "perspiration" (Gauntlett, 2011) in a process that requires risk taking.

It is evident that practitioners achieve a form of inspiration through a process of constant practice effort, in accessing a "hidden" or latent practice nature that is associated with the creative work of another practitioner. This practice latency would require a suitable process that makes it visible to the individual. I would posit that this suitable process, in an educational setting, is a pedagogic approach that promotes the nature of the creative practice medium. A photography practice pedagogy should then seek ways of sensitising the inspiration seeker to look beyond the surface appearance of the inspirational image. This inspirational knowledge, I would posit, is similar to the "reasoning and sense making" that happens "in the midst of action itself" (Raelin, 2007, p. 67). Furthermore, I would posit that the inspirational-practice-knowledge is not just practice knowledge, in the manner it is normally referred to in practice as *knowledge discussions*. This inspirational knowledge is then a personal inspirational practice knowledge that becomes particular to the practitioner" practice situation. This individual peculiarity then becomes inspirational to other practitioners. Within this context, the notion of craftsmanship expands to the notion of crafting knowledge from peculiarity, into peculiarity, a practice dialogic process that extends the standard reference of craftsmanship understanding.

Within the data, it also seems as if the notion of craftsmanship as an image making practice is sometimes referenced as the technique driven activity, as opposed to creativity, which is perceived as a conceptual activity. The nature of the craftsmanship in photography also seem to have shifted from an physical activity where "process[ing] film", or "make[ing] a print" resulted in a material "craft piece" (STA1.1, 2016), to "the digital, the computer, Photoshop [process of] creating a fine print" (STA1.1, 2016). It is evident that hand activity in digital photography is associated more with the image capturing activity. A teacher participant remembers the time when the practitioner "used to do things with [their] hands" (STA1.1, 2016). This comment refers to the photographic process that required setting up technical cameras, processing film and printing the processed negatives, as opposed to the hands-on activity of "taking photographs".

The practice nature of photography seems to consist of "taking photographs" and processing those photographs that were taken, for viewing. In the analogue tradition, this process was fused as one overarching process that consisted of separate integrated steps. A well-crafted photograph relied on practice-harmony, linking the separate steps into a photographic practice unison. A final visual representation of this process was only seen at the end of the completed process. I would posit that the craft-nature of analogue photography practice was constructed from the combined nature of the separate steps. This nature was embodied in the photographic output as a representation of the practitioner nature, which, in turn, was shaped by the complete practice process.

Digital photography seemed to have fragmented the normative photography process steps. These separate steps could then consist of acquiring (taking a photograph), processing (computer assisted), and publishing (printing or digital display). I will posit that the fragmentation became inevitable when a visual reference became possible at each step towards the final embodiment of the complete process. The digital camera displays a digital preview of the camera-processed data after exposure. Thereafter, the computerised software processing provides infinite aesthetic possibilities that are visible in real time, on screen. The final print process is preceded by finer visual calibration adjustments, on screen, before printing a physical artefact.

I would posit that the fragmented photography process could lead to "premature closure" (Sennett, 2008), preventing interrelated risk-taking. A further imposition for risk-taking could be the exclusion of chance over absolute control.

The ability to adjust to absolute values might then impact the risk-taking-nature that is associated with the notion of inspiration. In contrast to "digital perfection", the analogue photography nature had some mystique associated with image-latency, darkroom processing, and print imperfection.

I will posit that the nature-perception of the photographic process is greatly influenced by the digital photography process. A teacher participant hints at the nature difference between analogue and digital when he states that:

> "you can see when someone has knowledge and the skill and the experience and the love for operating that camera. And, this has not always translated into the digital environment" (STA2.1, 2016).

Within the context of photography as a craft, the same participant distances the digital experience from an analogue craft perception:

> "I believe a craftsman and his tool becomes intertwined. So, and I don't see a lot of that [in digital photography] (...), the consequence of the way in which the digital environment operates" (STA2.1, 2016).

The craftsman tool is exemplified as "just natural" (STA2.1, 2016) in much of the writing on craftsmanship (Greene, 2012; Sennett, 2008). It is as if the tool became something else in the hands of a skilled practitioner. A teacher participant alludes to "a beauty in seeing a skilled practitioner using a tool" (STA2.1, 2016). The digital tool seems to have lost some of the craftsman's tool status, as a near human extension. It is as if the special relationship with the tool could shift from being "intertwined" (STA2.1, 2016) with the tool to using the tool out of necessity. An industry participant comments on the photographic tool:

> "I think photographers have quite an emotional relationship with their tools" (IND4.1, 2015).

When the same participant referred to his first camera "that got stolen", he exclaims that "my heart is still sore about that" (IND4.1, 2015). In contrast to this "analogue emotion" he refers to his current digital camera:

> "(...) but the 5D I see as a mere tool. If it gets stolen, I won't flinch for a second I'll phone my insurance and hopefully I get a new 5D, whether they give me a mark two of mark three does not matter. So, it strictly a tool to get to an end result. (...) it's nothing more than that" (IND4.1, 2015).

It is interesting how the analogue tool was referred to as a "camera", whereas the digital tool became a formulaic-like code as just a mechanical component towards success.

The camera-tool framed, what followed, in the analogue process. The digital camera, as the photography craftsman tool, seemed to have receded to the background in the current imaging process. Whereas handling the camera and capturing the image used to be the principal practice activity for the photographer, it now seems that the digital post-processing what was captured, gained dominance. There seems to be a shift from what a photographer can do with a camera, to, what can a photographer do on the computer. The digital camera now only allows for negligible hand-practice connection with the photography process. Sennett (2008, p. 52) warns of "mental impairment" when "head and hand is separated" in the craft practice.

I will also suggest that there is shift in emphasis between the analogue hand tool and the digital supereye (Mitchel, 1992) that not only become an extension of natural vision, but also a bionic connection that is digitally tethered with the computer software. This extension that becomes a connection bridges the analogue digital divide and digitises visual conception and perception of the photographer, which allows the photographer into a world from which he or she was excluded before.

I would posit that the connection between the craftsman and the tool characterises the nature perception of the craft and how it is taught and learned. The digital process described above could then have a marked effect on the pedagogic approach for photography practice education. Feedback, which is a critical component of creative practice educational input could now be given to the student before the student is practically mature enough to self-interpret the feedback. Conversely, the digital process could then also allow for quicker feedback from teachers. The digital process allows for teacher feedback before the image is committed to atoms.

Pedagogically then, and in the light of educational best practice (Gross, 2005), the student can get feedback during the image making process from inception to completion. This was not possible in the analogue photography process. However, this could lead to a constant pursuit of perfection, whereas the analogue process allowed for imperfection and acceptable mistakes as part of the nature of the medium. The photography nature that is historically established on a "sense of tradition" that was

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fashioned by "errors, imperfections and variations" (Sennett, 2008, p. 123), seemed to transform into a new tradition of digital perfection.

I would posit that the notion of perfection could have an influence on the human characteristic of pedagogy as an inter-human construct. From the data it was noticeable that students wanted perfect answers from perfect teachers practicing perfect pedagogy, while subconsciously being aware that the uniqueness of individuals make this impossible. Is clear from the data that this perfection is rare. There does seem to be a strive towards practitioner perfection as practice confidence increases.

The digital world of perfection might give an illusion of a perfect pedagogical world where digital nature presides. The digital world is in fact not perfect. It is a space where mistakes are cloned out to perfection for the natural eye. The flaw is fooled into perfection, in my view, which can lead to a false conception of educational input related to educational output. The risks taken become sloppiness that can be fixed as opposed to challenges that engender growth.

The play between "certainty" and "risk" (Pye, 1968) seem to present conflicting participant viewpoints related to practitioner confidence-authority. According to an industry participant "you can have all the skills, all the knowledge possible but, if you are not confident enough, you may not do what you should do properly" (IND4.1, 2015). The confidence referred to here seems removed from skill-certainty. Confidence relates to a practice authority that is associated with experience that could only be nurtured over time. I would associate this practice authority to practical wisdom, or *phronēsis* (Parry, 2009).

A third-year participant was not reluctant to state, "I think that I am still finding it" (STU3.4.1, 2016), when probed about personal confidence. Another student participant refers to overall confidence that relies on "learning new techniques" in conjunction with time-related experience with the medium:

> "(…) my confidence has definitely grown since I have come here. Being able to accomplish what I have, (…) learning new skills, finding out new ways to solve problems has definitely boosted my confidence. I believe it is something that is growing and that will keep on growing" (STU4.1, 2015).

The "finding [of] new ways to solve problems", seems to be an individual search. This search produces confidence, or practice authority, that scaffolds on previously accumulated practice knowledge. The increasing practice authority resource seems to feed practice authority. The industry participant's comment seems to point to a possible disconnect between skills, knowledge and confidence. The focus shifts from confidence attached to separate skills and knowledges, many confidences, and a confidence condition that is informed by a continual confidence pursuit, which includes the independent skills and knowledges.

This confidence-condition does not rely on knowing an individual skill or particular knowledge and becomes embodied practitioner confidence. Sennett (2008) relates this condition to where "technique is no longer a mechanical activity" (p. 20). Furthermore, he ascribes the ability to "feel fully and think deeply" to a state of doing something well (Sennett, 2008). I would add to this understanding and posit that *practice knowledge provides confidence that supersedes skills and abilities*. It allows the practitioner to act skilfully even though the practitioner is doing something for the first time. The confidence is then not embedded in the skills per se but becomes a condition of practitioner maturity. I would relate this practice maturity to practice confidence that is not embodied in memory but in practice-being.

A teacher participant seemed very confident about his practice abilities, even though it is not possible for him to practice photography on a daily basis:

> "(…) [I]t takes me five minutes behind my camera, as I am comfortable with my tools" (STA2.1, 2016). "(…) if I have to go and practice as a professional tomorrow, I will" (STA2.1, 2016).

This practitioner confidence does not seem to influence the reality of being a teacher, removed from day-to-day professional practice. I would align the above interview response to "Victor Weisskopf's caution to adult scientific technicians" stating that "the computer understands the answer, but I don't think you understand the answer" (Sennett, 2008, p. 156).

The teacher response above infers confidence that surpasses technique and technology as the ultimate factor for successful professional practice. Green (2012) relates this phenomenon to the neurological

process where primary skills learning "recruits a large number of neurons", enlarging the frontal cortex of the brain, until, through repetition, "it becomes hard wired" (p. 60). The hard wiring is a result of whole brain activation to remember the task, like riding a bicycle "years after we learnt to do so" (p. 61). This process of understanding your medium does not come effortlessly. I asked a student participant when she learns the most, as a practitioner. "Oh no, when going through difficulties" (STU3.4.1, 2016). She related the learning of a simple manual technique that forced her, and not her camera or computer, to understand:

> "(...) right now I am trying everything. Ah, when you go through difficulties. Because your brain has to work. You have to tell yourself no, open up, open up" (STU3.4.1, 2016).

The effort that the student is referring to is also explained by Gravett when she refers deep learning to the re-organisation of current neurological synapse, or "previous knowledge", which cannot be deleted (Gravett, 2005, pp. 31-36).

It is evident that it is in practice where deep practice learning takes place. Gravett further mentions two factors to re-wire established synapse in our brain. She indicates that the synapse change occurs when it is often used and whether the signal is important (p. 34).

Repetition is often mentioned in practice learning (Greene, 2012; Polanyi, 2005; Pye, 1968; Sennett, 2008). I would then suggest that attention should be directed towards establishing a sufficient foundation before scaffolding of the next level of practice knowledge is introduced. Academic time does not always allow for this. However, if an appropriate pedagogic strategy is in place, and students are aware of this learning factor, repetition can be seen as a practice learning necessity instead of an academic burden. I would posit that an appropriate pedagogy, in this sense, should not instruct but induce self-responsibility through self-realisation.

I see the second factor, mentioned by Gravett, - the important signal - as another crucial factor that can be overlooked, by the teacher, as a non-pedagogical concern. My proposition of a dialogic pedagogy in the title of the research is of importance here. Dialogism, in a pedagogic context, denotes the nature of

the proposed pedagogy. This nature does not only propose a participatory character. On a deeper level, it proposes co-ownership, as a participant decision maker in the educational process. I would posit that respect for the teacher is not at risk here. Apart from a respect for learning that establishes respect for participants, practice, as the core characteristic of the learning that needs to take place, should foster practitioner-respect. I posit here that practitioner respect unlocks the receptivity for practice learning signals that need to "stabilise" (Gravett, 2005) the practitioner-learner synapse. This stabilisation is then established through repetition, and importantly, a desire to receive the information signal. I would further propose that practitioner teachers be active practitioners to transmit the appropriate practice signal.

As practitioner guides, teachers of photography practice seem to yearn for practice over teacher status. In probing whether they are teacher-practitioners or practitioner-teachers, a teacher participant decisively answered "Educator-practitioner. But I'm hoping to change it" (STA3.1, 2016). This response seems to be realistically truthful. Realistically, academics" job requirements include teaching, research and community service. In most instances, teaching responsibilities makes up most of the workload. Research output requirements have amplified pressure on teachers to publish. Accredited research publications, prior to 2018, had to be in textual form. Accreditation for creative outputs were included in the new education policy in South Africa in 2018 (DoHET, 2017). This policy now acknowledges creative artefacts as a research output. Before this policy, educators in creative fields were compelled to publish textual research outputs such as journal articles, book chapters and conference papers.

The new policy guidelines now allow creative practitioner educators to publish their creative artefacts as accredited research. I would posit that the status of the practitioner will be elevated through this, providing conditions for the nature of a creative practice such as photography appropriate academic recognition. This possibility could then lead to an educational environment in which the nature of the medium, as an embodiment of the creative practitioner, is lived in the pedagogical context of the photography education. I would then posit that a more truthful pedagogic nature will conceive a more truthful practice pedagogic environment.

The truthful perspective of the referenced teacher participant seems to extend to the teaching of practice, which, for a student practitioner relates to their "(…) ideal lecturer [as] someone that is honest" (STU3.4.1, 2016). Students seem to rely on this practice-honesty when they are guided in their practice learning. A practitioner participant stated that "(…) the master, student relationship is important (…) because (…) the master (…) can see where you are lacking" (STU4.1, 2015). I would posit that the reference to teacher truthfulness does not only relate to what teachers know as right or wrong but rather a practitioner truthfulness that practitioner experience yields. Practitioner truthfulness can see where the current practice will lead to and self-adjust as practice unfolds. The metacognitive skills-guidance for Dunning et al. (2003) is important because learners need to "recognise their own incompetence" (p. 1131).

If teachers encourage the possibility for students to self-evaluate, the relationship of the teacher as "in authority" can change to "an authority" (Winch & Gingell, 1999, p. 18), so that students can develop in "an authority". Greene (2012) states that although submission to an authority is important, it "does not mean you remain passive in the process" (p. 108). If students do not become an authority of their practice, they are prone to "become little clones of efficiency" (STA3.1, 2016).

The reference to "clones of efficiency" also relates to an educational context with time constraints within which the practitioner development must take place. Writers on craftsmanship makes it clear that more time, rather than less time is needed for craftsmanship qualities to developed to a level of mastery (see Greene, 2012; Sennett, 2008). In fact, Greene (2012) refers to the great composers, including Mozart, who only wrote an "original or substantial piece of music (…) after ten years of composing" (p. 90). Sennett (2008)refers to "(…) thinking in craftsman-time, the slow time that enables reflection" (p. 251).

Overall, the data suggested the important relation to time in this research context. The nature of photography, as a time related practice, seems to influence the nature of a related educational

programme in a noticeable manner. A teacher participant reiterates that photography practice learning is about "spending time making images (…) making mistakes (…) learning through mistakes" (STA4.1, 2017).

In the film Kodachrome, the main character Ben acts out the life of a renowned photographer. In his last dying hours, he makes this remarkable statement about photography:

> "(…) we're all so frightened by time, the way it moves on and the way things disappear. But that's why we're photographers. We are preservationists by nature. We take pictures to stop time. We commit moments to eternity. Human nature made tangible" (Kodachrome, 2017).

This quote was undoubtedly well researched and informed by the great lines uttered by past photographers. Even so, it suggests essential aspects that speak to the unique qualities of the craft of photography practice. The great paradox of an instant exposure that becomes timeless. I would question whether the instance of an education-moment can have a timeless effect on the craft of photography practice.

It is apparent that not all instant moments are deemed worthy of timelessness. A world of photography exists where an instance is respected as worthy of timelessness. There appears to be continents and domains, similar to traditions and genres; even individual opinions might not adhere to the same standards for timelessness. In the teaching and learning environment, different masters with different views might become a challenge,

> (…) that confuses the apprentice, because one person wants this and the other person wants that, and you are stuck in the middle and you don't know, where do I go on from here" (STU4.1, 2015).

The master-craftsman (teachers and industry professionals) that I interviewed have all been practising photography over twenty years. I would posit that their concept of craftsman-time is much more mature than student participants who on average have practised for two and a half years. Reflection, therefore, can only take place in time. The appreciation of the craft of photography seems to be realised by practitioners as they refer to some aspect of the craft;

> "(…) over time you get better with it. You don't realise it, but you get people that you teach, and they were the same as where I started. (…) I really acquired that craftsmanship (…) working with that print" (IND2.1, 2017).

The idea of the reflective practitioner (Schon, 1983) seems to emphasise reflection in practice, not time. Reflection happens when the process of action provides the appropriate opportunity, not necessarily when you have time.

> "(…) these two minutes that you are in the developer, and you must rock that dish, and while you're rocking that dish there's time to think about other things, or it's quiet time" (IND2.1, 2017).

I would conceptualise the notion of time in the theme Crafting Photography Practice in the following manner. Firstly, there is a conceptual understanding of time as a duration wherein something needs to be completed. This notion of time seems to be an external influence on the individual practitioner. It also appears that this idea of duration-time affects the photographer as much as those people connected with the photographer's practice duration. Examples could include aspects such as academic calendar time (semesters and weeks) and academic deadlines for students and teachers. This notion of time is similar for industry practitioners that are linked to year-on-year business cycles and deadlines that are met within these cycles of time.

Secondly, time is conceived as an inner focus for the individual practitioner, as if time stands still, while the practitioner engages in a focused manner, to learn or to resolve practical problems. In this scenario, the craftsman-practitioner temporarily exists the time-based reality that links them to the immediate world in which they are situated. As they exit this time realm, they enter focussed practice-time, as they synchronise their "clocks" precisely with the "clock" of practice so that there is "absolute agreement" (Bourdieu, 1977, p. 80). I would suggest that it is during this time of connection with practice where the photographers" practice is crafted.

Even in the restricted time constraints of an academic year, another teacher participant is adamant that:

> "[y]ou take your time to create an image. You don't just pick up the camera and shoot. You look through the viewfinder, compose your image. When you go into Photoshop, you take time in considering the changes" (STA1.1, 2016).

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Time, for this teacher, is a commodity that the students should not waste. Time, in this context, has a depth dimension that is not necessarily linked with the length or duration that is normally associated with time.

As discussed earlier, the digital domain presents the photographer with instant feedback. There is an indication of an illusion in decreasing production-time. Sennett (2008), refers to the importance of patience to the craftsman process where the practitioner has to resist the temptation of "premature closure" (p. 221). An industry participant that works with both analogue and digital processes is of the opinion that digital processes "always takes longer than what you hoped for" (IND2.1, 2017). It is evident that although "you have more control in digital" it "is a lot more complicated and difficult and more time consuming" (IND2.1, 2017).

It is evident that "more control in digital" (IND2.1, 2017) presents a crafts-person, seeking perfect closure, with more choices. Sennett (2008) suggests that a "good craftsman" allow for a "measure of incompleteness", avoiding a relentless pursuit of perfectionism as he "learns when it is time to stop" (p. 262). It can then be said that the nature of the practice medium should dominate the notion of time. I will posit that a pedagogy for photography practice should allow the nature of the photography practice to emerge through meaningful individual practice connections, as opposed to time induced institutional programming.

Furthermore, a pedagogy that privileges practice will stimulate depth more than duration. The institutional confined to three-year degrees is just not long enough to develop the required skill set that a practitioner should have. Therefore, emphasising depth instead of duration will require a pedagogical potential to accentuate the "supereye" potentials that digitisation can generate. In this sense, I suggest that the supereye properties will be the ecological optics (Gibson, 2015) that allows illumination (not radiation), an ambient array, from all directions, to influence the imaging perception.

In-depth, personal knowledge of the practice medium seems inevitable if the above can be achieved. Sennett writes that the "fear of making mistakes" should not be the most important part of a practitioner, "since the musician on stage can't stop, paraly[s]ed, if she or he makes a mistake. In [practice], the confidence to recover from error is not a personality trait; it is a learned skill" (Sennett, 2008, p. 160).

The process of Crafting "personal" Photography Practice knowledge through a conducive teaching and learning process could then be seen as an essential factor that should supplement the understanding of the Craft of Photography Practice

5.5   The crafting of photography practice knowledge

The Crafting of Photography Practice Knowledge, as a theme, was constructed from participant responses that addressed conceptions of how practice as knowledge is assimilated through teaching and learning.

Students are confronted with a three-year course in which they need to acquire an appropriate understanding for a craft-knowledge that spanned one hundred and eighty years. The learning and teaching task that must enable this goal is expressed as daunting. A teacher participant indicated that he "might extent the tradition, if [he was] lucky, by half a step, and then that [student] extends it by three steps in their career. (…) so, that's why that transference is important".

Transference, in the context of this theme, seems to denote more than only skills transference. To avoid "clones of efficiency" (STA2.1, 2016), students need to find and discover. A teacher participant is adamant that "you must keep exploring" (STA3.1, 2016), indicating that practice knowledge is something that you can only accumulate through practice. A teacher participant suggested this notion of continuous exploration by commenting on his own learning:

> "The other day I went and helped [in the industry], there is no payment, I go shoot for the day, spend the day shooting, and getting frustrated, and, but you learn from it. And I bring that back

to my class, you know. And it is wonderful to do that. I think as a lecturer to keep subjects as alive as possible" (STA3.1, 2016).

In the above quotation, I see a few essential references to learning and teaching photography practice. It becomes evident that the pursuit of practice learning is at the heart of practising photography, you do not do it simply for remuneration.

The quote also addresses the notion of learning while getting frustrated and not getting everything right the first time. Sennett (2008) writes that "craftsmanship is based on slow learning and on habit" (p. 265).

The teacher in above quote also referred to the transference of the complete experience to his self-learning. It was not the last bit of learning for the teacher but a progressive way of continuous learning. Sennett (2008) refers to a vocation that speaks of "the gradual accumulation of knowledge and skills and the ever-stronger conviction that one was meant to do one particular thing in one's life" (p. 263). Gradual accumulation is associated with the "process of knowledge construction" (Gravett, 2005, p. 21) and scaffolding, which then leads to an ever-stronger conviction of what you want to be. The term vocation seems to relate to a continuum. The pursuit of this vocation is perceived as layered, by constructing, as "you begin with one skill that you can master, (…) that serves as a foundation for acquiring others" (Greene, 2012, p. 60). This process of becoming should then start with an educational process that transfers seamlessly into a profession. How are students then mentored into a vocation? Green (2012, p.107) refers to books as possible mentors when you read a master's work: "In such a case you will want to convert such books and writers into living mentors as much as possible" . He suggests you "personalise their voice"; "analyse what they write and try to make it come alive – the spirit and not just the letter of their work".

In the same manner, the student photographer should not see mentors, books, teachers, or other inspirational photographers, as things external to their becoming. Students should connect with a "living mentor" and personalise their voice" (Greene, 2012). In the context of education, and this theme of

crafting practitioner knowledge, students should then connect with the practice knowledge spirit of these tutors.

In educational practice, this connection does not seem like something that can be forced. The notion of vocational knowing, what you want to be, or can become, is contentious in an HE setting. Students study photography, but they are not always sure where this education might lead. They realise that practice knowledge scaffolds to something which is not related to the nomenclature of a qualification. I believe the vocational knowing comes by conversation, voices that an appropriate pedagogy should facilitate. However, students must participate and allow this multi-voiced (heteroglossia) conversation of vocationally directed voices to influence them personally.

Teachers of photography practice can distinguish between students that are interested in photography as a career and students that are not. "[A] good student (…) will experiment". The student that is not hundred percent convinced of the course, (…) finds it difficult [to experiment]" (STA3.1, 2016). The uninterested students "don't mind being absent" (STA3.1, 2016), and is therefore less interested in experimenting. The risk taking, as discussed in the previous theme, seems misplaced. The risk of not being in class, and still hoping to pass, outweigh the risk taking that characterises experimentation.

The interested student is more cognisant of what the pursuit of photography practice knowledge entails. "It's (…) what our lecturers have taught us during the years that we have been here. It's also what I have discovered (…)" (STU4.1, 2015). This discovery is vital to an ongoing educational process and pursuit to connect with the spirit of practice knowledge.

> "I believe you never stop learning. You can never learn too much, and you can never practice too much. (…) no one can know exactly what is in the universe, and I believe you never stop learning. (…) as an individual, you keep on improving yourself, you keep changing as, (…) time changes, as your environment changes" (STU4.1, 2015).

Practice knowledge is compared to infinite universal understanding that is continuously evolving and never entirely attainable. To recognise this unattainable goal might demand a learning and teaching

environment that allows the practitioner learners to search out the depths of practice knowledge for themselves. Even in industry, practice problems are never solvable by some formulae:

> "(…) sometimes you don't have a clue how you are going to approach this making process. So, what then usually happens, is there is a bout of panic, and then you settle down, and you go, well, I am going to do this, I am going to learn how to do this (…) (IND2.1, 2017).

The photography world is a praxis environment that require space for the photography-denizen to function in that practice society. The institutions that prepare photography denizens for the photography world needs to be aware of this requirement. Sennett (2008) indicates that "[i]nstitutions have to sociali[s]e that worker". "The drive to do good work can give people a sense of a vocation; poorly made institutions will ignore their denizens' desire that life adds up" (Sennett, 2008, p. 267).

One teacher's perspective is that a photography denizen is a connected being. "I tell [students] (…) we learn from all the arts (…) we learn from businesspeople, I say we learn from everybody" (STA3.1, 2016). It is as if world of practice opens to photographers as they enter the world of industry. There is an inherent chasm between the two worlds of education and industry, which remain difficult to bridge. While being a student of photography, an industry participant states that "(…) [he] can't say that [he] had a clear direction, (…) that [he] wanted to go in (…)" (IND4.1, 2015). Another industry participant mentioned that he "had to change" what he has learnt "(…) to fit into the working environment" (IND2.1, 2017).

Preparing the future professional practitioner for this industry seems like an ongoing pursuit that is not always successful. For one industry participant, the change from education to industry was considerable:

> "I disregard my formal training, (…) almost completely. (…)" (IND2.1, 2017).

This comment should be an alarm bell for every concerned photography educator and institution where photography practice education is accessible. In the following statement, the same industry participant refers to the mentors that he regards as the guides in his "formal training":

> "I worked at [a newspaper], and photographers took me under their wing. That I see as my formal training" (IND2.1, 2017).

His perception of institutional training seems to be different from what he received from tutors in industry:

> "The [university] training was almost in technique, which I think any photographer should have. (…) but the (…) way I approach the visual, the physical making is completely dependent on what (…) photographers taught me". (…) and when I moved from press and I moved to magazine work, and I had to learn how to craft light (…)" (IND2.1, 2017).

I do not see this comment as a general statement against the institutional education of photography. This response applies to the participants' personal experience. Later on, in the interview, he admits that he "was just young and naïve",

> "(…) if I look back at it now, from a 35-year old's perspective, I want to kick myself, because I had all these opportunities [and was] "not (…) inspired by it" (IND2.1, 2017).

Inspiration is likely the open door to connect with in-depth practice knowledge. Polanyi (2005) refers to the transfer from "knowing how" to "knowing what, and the "focal awareness", possibly the technical knowhow referred to above, in contrast with "subsidiary awareness" (pp. 57-58) of all the facets that impact on the actual making process. Although extrinsic inspiration is often mentioned, a participant commented that "(…) I think the learning [of practice] does inspire you" (IND4.1, 2015). Being busy with practice seems to allow the act of practice itself to produce intrinsic inspiration. This practice involvement seems to sensitise the practitioner, making them more aware of how other photography practitioners do things. Student photographers then seem inspired "(…) seeing people practising photography. Especially the professional level" (STU2.2, 2016). A teacher photographer seems to negate student/teacher hierarchy in this learning process when he states, "I do feel that watching someone practice is very important" (STA2.1, 2016). However, in the teaching context, he expresses the practitioner-educator nature to "[t]ake them on location [and] [s]how them possibilities" (STA2.1, 2016).

Extrinsic inspiration was often mentioned in the form of having one's work published. An industry participant stated that "… it inspires me to see my images printed" (IND2.1, 2017). The completed photographic artefact seems to be more than a mere rendition of reality. Photographers appreciate the accomplishment embedded in the final artefact. Most of the time it involves long hours to achieve the

outcome. A student explains, "[f]or me to achieve these pictures, it takes me, (…) some time, more than three weeks" (STU1.3.1, 2016). Photography practitioners generally seem anxious when new work is shown for public scrutiny. A teacher participant states that on showing her PhD practical work to her supervisors that she "would be extremely apprehensive (…) I don't know they're going to react" (STA4.1, 2017).

Project marks, in the educational context, definitely affect confidence. A student participant is of the opinion that "[i]f you get good marks, confidence stay, but if you get not so good marks…" (STU3.4.1, 2016). There seems to be a correlation between marks and skills achievement for one student participant:

> "(…) firstly I was getting low marks, because I, yeah, I think I got an average for (…) post-production on our first project. But as, as time went by and, (…) I started gaining confidence on, (…) my Photoshop" (STU2.4.1, 2016).

The idea of good marks does not seem to be an absolute indication of practice proficiency. A practitioner strives for a sense of practice-knowledge that is not reliant on marks alone. One student responds to the notion of "good marks":

> "if I am honest, if the marks are good, you're gonna relax. You (…) get to a place (…) and you like, I'm on track. (…) then the second session of marking comes, and then you did bad. That's where you wake up" (STU3.4.1, 2016).

Allocating marks at in the university context denotes a systemised academic authority that could bring practitioners into submission of the markers' judgement. From the data I identified various forms of authority; 1) The educational environment as a systemised structure of adherence, as mentioned, 2) Individuals as practitioner authority, 3) The discipline of photography as an authority, 4) The photography industry as an authority 5) Technology as an influencer of authority.

5.5.1   Forms of authority

5.5.1.1   The educational environment

The institution projects an image that it is a place of regulation that purposes success. Public institutions are held responsible for the quality of education presented and has many policies and guidelines that

protect this critical task. Sennett declares that "institutions have organi[s]ed themselves to embody authority" (Sennett, 2008, p. 55).

Teachers in the "workshop" of photography education are employees of the institution that humanise these institutional policies to their students. Student participants never referred to university policy or the implicated demands that these policies can have on them. It is evident that teachers interpret the organisational expectations in a manner that shields students from its implication. A teacher commented that (…) we are the institution (…) (STA4.1, 2017) to the students. The student are likely linked to teacher success. "There are directives of how many, what percentage of students must pass (…) (STA4.1, 2017). If the teachers then become the face of the institution to the students, students inadvertently can become "clones of efficiency" (STA2.1, 2016) of the institution. The institutional approach can then possibly lead to a student-practitioner character is influenced by the demand of the institution on the teacher. The underlying institutional objectives of pass rate could then influence the ethically neutral practice-oriented education for which the student registered.

Assessment in a university is inevitable. Assessment, in creative practice, has a history of contestation. However, the students in this study seemed to accept the abstract process of marking of creative practice as a standard educational procedure.

However, the probing the relevance of marks to the reality of the photography industry seemed to highlight the disconnect that students can have of the two different worlds. During the interviews, I interrogated the importance of marks over that of the final portfolio. A student concluded that the industry would look at the "portfolio" (STU3.4.2, 2016).

> "Sometimes I think we concentrate too much on having good marks. But then, we don't equip ourselves. (STU3.4.2, 2016).

It is likely that student practitioners eventually realise the importance of equipping *themselves* for their practice-future. In this process of becoming a practitioner, marks seem to become less critical. A final year student comments:

> "Last year when I, when I was shooting, my marks were really nice. (…) this year, I don't know where I stand, in terms of my marks. I don't even know if they are the same as, (…) last year. (…) one thing that I have noticed, is that, (…) I'm shooting more (STU3.4.2, 2016).

Marks, in the process to grow as a practitioner became unimportant; "I wasn't stressed about the marks. But then I was quite happy with myself that I tried something new" (STU3.4.1, 2016). There was a sense of freedom when the institutional control through marks become less critical for the student practitioner.

> "(…) I felt happy with myself. Like you know what, try different stuff. (…) We normally don't submit some things that have different treatments. And I was like, (…) it's time for you to, to take a risk and go. And it felt nice, (STU3.4.1, 2016).

On the other hand, the reality of marks at an educational institution can make the difference between failure and success, academically. A student participant alludes to another reality perspective on why marks are not unimportant "if you go back home" (STU3.4.2, 2016),

> "(…) and they have spent this money, and you come there (…) with, OK marks, and (…) the portfolio is nice (…) sometimes our parent[s] doesn't really get that, like, OK, you can have interesting images, but how are [you] gonna make it in life with this kind of mark (…)" (STU3.4.2, 2016).

The notion of marks might remain a complicated issue in creative practice education. In our department, we developed elaborate rubrics to constrain the authority of the institution to some form of creative practice rationality that makes educational sense. Teachers design the rubric through a complicated process of scaffolding skill towards project aims and industry relevance. The rubrics also differ between year-levels. This might be an attempt by teachers to supplement the nature of institutional authority with the nature of creative practice authority.

5.5.1.2   Individuals as practitioner authority

Students still refer to a difference of opinion that "sometimes (…) confuses the apprentice,

> "because one person wants this and the other person wants that, and you are stuck in the middle and you don't know, where do I go on from here? (STA4.1, 2017).

Teachers usually assess student work as a panel of two or more. The rubric concept that was referred to earlier ensures a more course-objective approach at the marking session. However, during the build-up to the final hand-in, students sometimes seek advice from teachers that are not directly involved with the project. The advice from other teachers might cause some confusion, as stated above.

Most photographers seem to have an element of authority to which they adhere. For the student, it is the teacher. For the teacher, it is the photography programme within in the institutional context. The professional is evidently subject to the authority of "the editor" (IND2.1, 2017) or employer. Alternatively, I propose that the authority could be different if we replace the titles student, teacher and professional with photography practitioner. The practitioner that is continuously learning more of his or her craft becomes engrossed with the authoritative act of practice.

For Polanyi (2005) "[t]o learn by example is to submit to authority" (p. 55). The danger, as I see it, can be in becoming "replicants" (Sennett, 2008, p. 86). One teacher participant exclaimed:

> "I am careful of the master-apprentice model, but there is a relation between the inexperienced individual and the experienced individual, and the praxis that happens between that" (STA2.1, 2016).

Praxis, in this sense, is referred to by Waghid as "reflective praxis" or "doing action" (Waghid, 2002, p. 470).

Submission to authority, for Polanyi, is when --

> "[y]ou follow your master because you trust his manner of doing things even when you cannot analyse and account in detail for its effectiveness (Polanyi, 2005, p. 55).

I would propose that the authority shift from practitioner to practice where you "emulate" the master to "pick(s) up the rules of the art" especially "those which are not explicitly known by the master himself" (Polanyi, 2005). There is then a "surrender[ring]" to the practice to "assimilate(d)" the "hidden rules" of practice (Polanyi, 2005).

This notion of deep appreciation of any practice, observing someone "doing something well" (Sennett, 2008, p. 117), is illustrated in a participant's comment on watching a:

> "(...) gardener working with a spade in the garden (..) I realised that he's got an intimate relationship with that tool" (STA2.1, 2016).

In another instance, the participant stopped and watched a plasterer "plastering that wall with such skill" (STA2.1, 2016), "what they do is a part of who they are".

For students, observing the practice of a professional photographer, first-hand, was something that would reveal the secrets of practice that cannot be taught. A participant responded that he is "looking forward to get someone like that (…) to see how he approach[es]" his photography (STU2.2, 2016).

Polanyi (2005) point to the danger of "connoisseurship" (p. 84) that can "delicate[ly] discriminat[e]" through the use of "rich vocabulary exactly". In my opinion, and from the data explored, practice-authority should exceed connoisseurship. Sennett refers to as a "good craftsman [that] is a poor salesman, absorbed in doing something well, unable to explain the value of what he or she is doing" (Sennett, 2008, p. 117).

Throughout the interviews the practitioner had difficulty to express the making process and its concepts:

> "How do I put it (…) (STU2.4.1, 2016; STU3.4.2, 2016), Don't know how to (…) (IND2.1, 2017), "I don't know how conscious that happens (…) (STA4.1, 2017), I don't know if you will understand (…) (STU2.2, 2016), I don't know if I answered your question correctly (…) (STU1.3.1, 2016), I don't know the exact definition to craftsmanship, or creativity (…), I'm not sure I'm right" (STA1.1, 2016).

5.5.1.3 The discipline of photography as an authority

In the writing above I moved the emphasis from the individual to practice. I believe practice can become an observable authority for the photographer. The discipline of photography could include many facets such as theoretical knowledge, practical skill sets, people skills and practice experience.

Practice experience seems to be a process of living the photography experience that produces personal knowledge that becomes the authority in the photographer's life. An industry participant explains that "I've got a feeling for these kinds of things. It's come through my set of life experiences and knowledge are built over time" (IND4.1, 2015). Sennett (2008) steers away from the concept of innate intelligence and "the further you get, the fewer of you are there" concept (p. 268). In the research data, there were examples of uninterested students that became successful professionals (IND2.1, 2017), as well as

students with all the ability in "language" and "marks" (STA3.1, 2016) that realised photography "is not what [they] have imagined" (STA3.1, 2016).

Sennett presents a "controversial proposal (…) that nearly anyone can become a good craftsman" (Sennett, 2008, p. 268). This statement is made in the context of craftsmanship in general and not photography specifically, which can be practised in the spirit of craftsmanship. Sennett continues to expand on this "paradox" stating that:

> "a highly refined, complicated activity emerges from simple mental acts like specifying facts and then questioning them" (Sennett, 2008, p. 268).

Participants were adamant that aspiring photographers need "passion and interest in what they are doing" (STA3.1, 2016), self-motivated (…) a sponge (…) very eager [to] take your advice (…) apply [it] and learn from it" (STA1.1, 2016). They were also described as someone that has "passion and love for photography" (STU1.3.1, 2016). From these statements, I notice a deep interest in, and respect for the medium of photography, should transcend inherent ability. A teacher participant indicated that his ideal student would "extend the tradition with three steps in their career" so that the medium keeps growing. (…) it's not a dead thing. It's a live thing" (STA3.1, 2016).

I will posit, that the life that is associated with the medium of photography could then become an authority that the practitioner submits to. For a practitioner to recognise this life, he or she should recognise the medium as an organism that feeds off practitioner dialogism through practice activity. This submission to practice as authority then becomes umbilical. I would propose that this umbilical process nurtures dialogically between practice and practitioner, augmenting the practice-life of the photographer as well as the practice-life of the photography discipline.

5.5.1.4   The photography industry as an authority

Photography education at VUT has a socio-economic directive and therefore must prepare the students for economic viability. The economic end goal does not deter from the practice knowledge orientation of the medium.   A photographer generates income through his or her photographic practice. The

student's understanding of acceptable practice in the industry is then essential to compete and make a viable living. Photography is not a regulated profession such as medicine and engineering, which allows prospective photographers to practice "professionally" without related academic credentials.

It is clear from the data that students realise that the general industry does not look at the marks that the student achieved at the university. Similarly, a medical practitioner also does not have to present his academic achievements in mark form. The medical practitioner displays his credentials in the form of a qualifying certificate that was verified by a regulating body. In the practice of photography, the qualifying certificate from the university carries less authority. The uniqueness of the medium not only provides photographers with the scope to specialise in a specific visual area but also allows for personal signature within that visual genre. A participant responded, "in the industry itself there's people that differ. Like you know from A to Z." (STA3.1, 2016).

The portfolio, as it was previously discussed, becomes the foremost authority in this visual practice. In that manner, the photographer is presented in, and as, the photography portfolio. The client can see the capabilities of the photographer without much the need of verbal motivation by the photographer. A participant mentioned that her photography work is "(…) a reflection on me" (STU3.4.1, 2016).

I will then posit that industry looks at the photographer's portfolio through industry eyes. The photography industry, in this sense, represent the authority that can provide access to the "world of photography work". The practice knowledge of the photographer earns the photographer a place within the economic photography practice space.

The student is aware of this unwritten industry portfolio-image that must be presented. A student participant is adamant that his ideal lecturer would be "somebody who has obviously worked in the industry and has also studied photography" (STU2.4.1, 2016). It is noticeable that the respect for academia remains while the industry experience is not negotiable. The industry, as a destination where the professional inhabit, seems applicable.

Considering the above, I would position industry authority in an educational context. The industry as authority is not perceived by participants as a removed entity. I would classify industry as an educational participant through a process of guidance. This guidance, I would posit, includes a manner of assessment through standards achieved by combined practitioner participation. In this way, it can play the role of the pedagogue, or guide, through its practitioner members.

An industry participant stated that "(…) it inspired me to be taught by people in the industry (…)" (IND4.1, 2015). It is evident that industry authority in teaching is a privilege and a necessity. Students have a natural conception of the role that industry plays in their continuing education as a photographer. A student "knew" he needed an industry induction, or apprenticeship when he stated; "I don't know (…) how (…) industry works (…). I'd love to (…) work for somebody and learn the industry and start my own business, you know" (STU2.4.1, 2016).

The ongoing industry-teacher authority is supported by an industry participant that relates his current practice knowledge that was shaped in industry:

> "Over time (…) I can in an educated way, look at it and I can, (…) on industry standard, see whether it is a good print or a bad print, or if it's exceptionally good print or (…) just normal (…)" (IND2.1, 2017).

An interesting concept that emerged from the data relating to industry authority is the idea of personal fit within the wide-ranging practice world of photography. During the educational phase, the prospective photographer is encouraged to develop a personality, or position their personality within their practice. I would argue that educators, "in [educational] authority", should prompt prospective photographers to become "an authority" (Winch & Gingell, 1999) of their own practice. This form of authority seems to happen later than sooner in the photographers practice life. An industry participant is confident that he found this authority, stating; "I have always said that I know where I fit into the industry" (IND4.1, 2015). This "fit" is not an educational fit, but rather a photography practice fit that lives within the domain of industry practice.

I would then suggest that the industry, however defined, remain a respected authority within educational photography pedagogy. The educational positioning of the industry as an authority might assist students to see the industry as the fulfilment of becoming a practitioner, as opposed to education which is the conception.

5.5.1.5   Technology as an authority

Since its inception, capturing a photograph without the appropriate technology was inconceivable. The process was reliant on physics, chemistry, mechanical technology, and now, mostly digital technology. At every stage of the photograph process, technology in some form, dictates the artefactual outcome of the photography process. The acquiring phase utilises the camera as tool. This tool is now digital and can soothe the photographer through the multitude of automated processes available. The processing phase further amputates the hand of authority of the photographer. By choosing pre-programmed algorithms, the photographer allows computer software to effect change in the image. I will argue that the digital process relegates the practitioner to an outsider status that only allows contact with the image after the image is digitally printed. The physical print from the digital technology is described as "exceptionally boring" by an industry participant that still works with analogue processes (IND2.1, 2017). He includes digital photography under this "boring" view, describing it as "very sharp and very digital"(IND2.1, 2017). In contrast with digital technology, he describes the processes of a hundred years ago as "very beautiful processes", "not better than digital (…) but it's got a very different characteristic to it" (IND2.1, 2017). He further elaborates:

> "You can copy that image and you can print it out exactly in an inkjet print, but you will never have that characteristic of a printing process. (…) It's a really silver. The Platinum print is absolutely gorgeous. (…) For me it's almost like chocolate (…), I just wanna sink my teeth into. It is delicious to look at a platinum print" (IND2.1, 2017).

Figure 35: A platinum print and negative folder of an industry participant (Reprinted with permission from STA2.1, 2016)

A teacher participant related this technological change to the understanding of craftsmanship in the digital age, stating that "I thought about this a couple of times" (STA1.1, 2016).

> "Where does it come in. (…) because you are not making something. You used to make things. You used to (…) do things with your hands. You used to process a film. You used to make the print. So, you had something that you, a craft piece (…)".

In the context of this theme, and related to the research question, I would argue that digital photography has an impact on crafting photography knowledge. The craft itself became digitally removed from the makers" hand and therefore more abstract in the context of a physical craft. Students that learn photography as a digital medium has no concept of physicality in the manner the medium was practiced as an analogue medium. Maybe teachers still live in both worlds, analogue and digital. Their analogue learning reference seems associated with the physical authority the analogue medium commanded over the craftsman. In this analogue "era", the authority of the medium seems to command the knowledge process in a specific manner. Similarly, in the context of authority, but distinct in knowledge character, digital practice seems to command how the photographer should interact with the medium to get results.

Current photography students at VUT exclusively practice photography in a digital mode. The only physical contact they have with the image artefact is through a digitally printed inkjet print. In reasoning this concept for herself in the interview, the same participant relates her understanding of what "craft is [in]creating a digital image":

> "I would say it is a craft of composing a photograph, first of all. Placing the different elements within the frame. (…) And then crafting, I don't know, space and time the way you see it. And then, trying to make it as unique as possible. Then moving to the digital, the computer, Photoshop, creating a fine print" (STA1.1, 2016).

From the above response, crafting the photographic image is separated into two domains. Firstly, the conceptual decision making of the photographer related to composing the photograph by framing. The framing is done with the camera format that is used. She contextualises this crafting as "crafting (…) space and time" (STA1.1, 2016), making it "as unique as possible". The second aspect to photography craftsmanship is then related to "moving to the digital (…) computer" using image editing software to "creat[e] a fine print" (STA1.1, 2016).

Firstly, technology seems to be inferred when the participant refers to framing that is only possible with the use of a camera. Secondly, technology in the form of the computer and software is mentioned explicitly in reference to the creation of the "fine print" (STA1.1, 2016).

In the digital process, the fine print refers to what is achieved on the computer using imaging software. The fine print is then actualized, as it was on the screen, using a calibrated printer that renders the tones according to what was seen on the screen. The technical calibration process utilises custom profiles that render exact screen tonalities on each unique printing paper surface. Once the printer is calibrated, the print output is created automatically by the click of the print command. A teacher participant believes that the rendering of good tonality, on an accurately calibrated printing system, facilitates human access to the digital process. He states that:

> "The ability to translate the light that we see through visualisation into final artefacts (…) is limited by the technology. [tonal value] is the most fundamental thing that a human being responds to in a visual image" (STA2.1, 2016).

Achieving fine print tonal reproduction on computer can take up much of the photographer's time. Ironically, and because of the possibility of printer breakdowns, students only handle their final print after a teacher has printed it on the calibrated digital printers.

In contrast to this digital process is the hands-on traditional chemistry intensive process. The photographer had hands-on contact with the chemical "technology" fine print as it was processed to finality. In the table below, I attempt to construct the haptic interaction impression, comparing possible photographic processes that result in a final image.

Digital or Analogue Artefact Production Pipeline				
Input	Process	Output	Artefact type	Craftsman interaction (D=Digital, A=Analogue,)
Analogue (Film Camera)	Analogue (Darkroom hand process)	Analogue (Light-sensitive coated paper)	Paper, glass, metal, material or other solid surfaces	AAAA
Digital (Digital Camera)	Digital (Edit with computer software)	Digital (Web, interactive media)	Screen-based or projection media	DDDD
Digital (Digital Camera)	Digital (Computer software editing)	Digital (Digital inkjet type print)	Print on a solid surface from digital file	DDDA
Analogue (Film Camera)	Digital (Digitised image, edit with computer software)	Digital (Web, interactive media)	Screen-based or projection media	ADDD
Analogue (Film Camera)	Digital (Digitised image, edit with computer software)	Digital (Digital inkjet type print)	Print on a solid surface from digital file	ADDA
Haptic Factor (Human hand contact with artefact throughout the pipeline)				
A= +25%, D= -25% (Maximum H factor = 100%)	0%	25%	50%	75%	100%

Figure 36: Digital and analogue production pipeline.

In the table above an attempt is made to understand the haptic interaction with the final photographic object or image. There might be additional scenarios, but I believe the most common scenarios that the participants have or will encounter are covered.

Teachers and industry participants that have practised photography for about twenty years are accustomed to a 100% haptic involvement with their medium. Students either have 0% haptic involvement or 25% when they handle their digital prints after printing.

It is clear from the data and literature that the photographer should be the authority in the image making process. I will argue that technology as an authority can be harnessed if we understand how the technology impacts the image making process at every stage. Photographers that have gone through an analogue experience seem to find it easier to identify how a digital process can affect the imaging process detrimentally. Sennett (2008) suggests that "understanding" cannot be "separated from doing" (p. 125) and that there should be "continual dialogue with materials" to prevent this "divide" (Sennett, 2008)

A student seems to experience the digital divide that can happen to photography when she states:

> "I can't just capture something and then the equipment is gonna know. It has to go with me, what I feel. (…) I have to know my equipment, I have to set it (…) the proper way that I want for it to be. So, it has to go by my rules" (STU3.4.2, 2016).

In suggesting "an engaged material consciousness", Sennett (2008, p. 120) refers to three ways in which people change things; "Metamorphosis, Presence and Anthropomorphosis". Metamorphosis, according to Sennett, can occur when there is "a direct change in procedure" related to technology. Concerning this theme, I would suggest that a process of metamorphosis is necessary between analogue and digital technology processes. What I suggest is not only the apparent technological metamorphosis that has occurred in photography technology, but rather an adaption of imaging processing knowledge that ensures the crafting of photographic images.

Presence, for Sennett (2008), is related to the "leaving [of] a maker's mark" (p. 120). The digital mark, as described by the industry participants" response seems valid. I would argue that the analogue photography process could also only leave an analogue mark. I would propose a crafting of photography knowledge that "invest thought in things [that photographers] can change" in an anthropomorphic manner. Anthropomorphosis is described by Sennett (2008, p. 120) as "imput[ing] human qualities to raw material".

The technological tools, in my opinion, should allow the practitioner to impute human qualities to raw material. The constant human interaction with the tool to achieve the practitioners" practice aims could facilitate an overall human centeredness. A student participant seemed to have a similar practitioner understanding when he states:

> "Practicing every day, that you can understand your tool. I believe, if you use your tool (…) you can understand the way it is working. And, the tool itself, can understand you (…). (STU2.2, 2016).

A photography practice pedagogy, in my view, should inspire practitioners to visually dialogue with humanity. The "quality" of photography images should, in my mind, not be related to, and achieved by the technology process only. Neither should it be "marked" by the nature and process of digitisation, only. Preferably, the photographic artefact should project the eye of the practitioner to viewers of the photographic artefact. Traditionally it was so.

Technology should then be seen as an enabler. A student participant is of the opinion that "making and technology is related" (STU4.1, 2015). When she was introduced to new attachments ("rigs") for the camera, "you can try out new things" (STU4.1, 2015). It was also stated that sometimes "technology is also a bit overwhelming (STU4.1, 2015)", and that there is a "link between technology and confidence":

> "If I am given a new tool and don't know how to use it, I will go and do research on how to use it, (…) I can practice with it and figure out it's (…) niches, (…) you can figure out what makes it special if you hold it in this way or that way and actually (…) add that to your skills of making" (STU4.1, 2015).

A teacher participant states that the photography technology "is a complex thing (…) that shapes our relationships to what we photograph (…) it actually shapes you" (STA4.1, 2017).

The photography teaching and learning environment is a complex environment that has to facilitate an appropriate balance between the mentioned authorities and craft photography knowledge. Green agrees in that this "era we have entered is not one in which technology will make everything easier" (Greene, 2012, p. 63).

A technologically intensive creative practice academic programme should then strive for a pedagogy that enables technologic transparency. I would propose transparency through practitioner authority over transparency through technology authority. Technology should *blend in* with the intent of the practice.

A teacher participant is of the opinion that the "interaction with the environment" using photography technology can change the situation into "something else" (STA4.1, 2017). As a reference to the statement, the participant shows the image below.

Figure 37: Water droplets on the lens (Reprinted with permission from STA4.1, 2017).

The water droplets, for her, "became part of the actual lens" connecting her "emotionally" with the "environment" (STA4.1, 2017). It was an individual choice not to clean the lens, but to allow a connection between the environment and the technology, she used and herself as the authoritative mediator. For this participant, the tool's failure did not become a "tool at hand", noticeable, but through an attitude of problem solving, the tool became the connection between environment, her experience, the resulting artefact and the viewer (STA4.1, 2017). This, I believe, is a physical association with an ambient array of influencers, not just metaphysical.

In the above instance, I believe, the practitioner distinctiveness became more pronounced as the technology was positioned in a supportive practice-extended manner. Technology, in this sense, could be applied to reveal a bit more of the truthfulness that "does not aim to explain" but rather heighten our consciousness of the materials themselves and in this way to think about their value" (Sennett, 2008, p. 137).

Digitisation, I believe, cannot diminish the qualities of individuation that remains a basic ingredient of the photographer authority. In the same sense, craftsmanship does not speak about a machine like replication. However, it unifies the practitioner with the tool, the artefact, personal knowledge, individual approach, and unique value perceptions that makes us uniquely different. I believe this difference must be celebrated. I see this research as a personal project in reflection with other individuals as participants, amidst theoretical perspectives, and within a context of practitioner community and education. However, am I not a construct of my past, educated by interpretation, programmed, and informed by the outside, thinking that I have been free, and in this false conception, promote others (students) to be free as well.

Digitisation may have closed the practitioner/machine divide a bit more than the perceived widening of the divide. Flusser's (2000) notion of the magical machine that feeds into the super-black-box invoked a sense of imagination, which I believe is also a source of inspiration for the individual. Flusser states that an understanding (philosophy) of photography must "question photographers about freedom, to

probe their place in the pursuit of freedom". Photographer freedom, for Flusser, is questioned in a new

context that is not linear (Flusser, 2000). This non-linear context, for Flusser, is established on four

cornerstones towards a philosophy of photography, including image, apparatus, program[me], and

information (2000, p. 79).

From these "cornerstones" Flusser (2000, p.76) defines the photograph as,

> "[i]t is an image created and distributed by photographic apparatus according to a program, an image whose ostensible function is to inform. Each one of the basic concepts thus contains within it further concepts. Image contains within it magic; apparatus contains within it automation and play; program contains within it chance and necessity; information contains within it the symbolic and the improbable. This results in a broader definition of a photograph: It is an image created and distributed automatically by programmed apparatuses in the course of a game necessarily based on chance, an image of a magic state of things whose symbols inform its receivers how to act in an improbable fashion".

For Flusser, the above four pillars, image, apparatus, programme, and information, are all eternal

recurrences of the same (2000, pp. 76-77), which detaches us formal linear historical state, and places

us in an "existential revolution" where freedom must be pursued in a different way (p. 79).

Flusser (2000, p. 80) points to the looting of our freedom by,

> "apparatuses of every sort in the process of programming our life through rigid automation; human labour is being replaced by automatic machines and most of society is starting to be employed in the "tertiary sector", i.e. playing with empty symbols; the existential interests of the material world are being replaced by symbolic universes and the values of things are being replaced by information. Our thoughts, feelings, desires and actions are being robotised; "life" is coming to mean feeding apparatuses and being fed by them. In short: Everything is becoming absurd."

Flusser believes photographers are accustomed to operating within the constrains that takes freedom

away from us. Photographers, according to Flusser, learned how to "outwit the camera's rigidity", how

to "smuggle human intentions into its program[me]", "force the camera to create the unpredictable,

the improbable, the informative", and to "show contempt for the camera and its creations and turn

one's interest away from the thing in general. Freedom for Flusser, "is playing against the camera"

(2000, p. 80).

The final major theme of the analysis explores photography practitioner freedom through participants' responses.

5.6   Crafting practitioner identity

This theme was constructed of codes that represented ideas of *Voice, Working collectively and alone, Want to do/ have to do, Shaping by the past and the Ideal student/ lecturer*. In the process of analysis and discussion, I moved codes that were initially allocated to Crafting Practice Knowledge and Crafting Photography Practice to Crafting Practitioner Identity. I believe the iterative reflexive research nature of this study allowed for data to locate itself within the research theme in a "non-linear" manner (Hase, et al., 2006). The codes that were moved included Mastery, Observation and Self-Knowledge.

Notions such as the craftsman, maker, photographer, student, teacher, professional and practitioner, in this research, denote an individual with specific attributes that classify. These descriptors could group the individual with other individuals by changing the descriptor from singular to plural. Some of these descriptors could also combine to identify the person further. In such a manner, a noun could become an adjective that describes an attribute of the person. Some signifiers can have adjective-descriptors added to them, such as portrait photographer, a third-year student and applied photography teacher.

Participants generally did not categorise themselves adjectivally under the term photographer. Instead, they referred to a field of photography practice such as fashion photography (STU2.4.1, 2016), street photography (STA2.1, 2016), landscape photography (IND4.1, 2015), even overlapping genres such as multimedia production (STU4.1, 2015) and video (STU3.4.2, 2016). Participants also indicated preferences but never classified themselves with particular preference. Some participants seem to enjoy photographing with other photographers at times, and at other times they preferred to be alone:

> "I enjoy the landscape to some degree (…) for solitude. I don't want people there"

> (STA2.1, 2016).

From the previous statements, it could then be inferred that a photographer identity is linked to the medium of creative practice more than to a genre within that practice. It could be said that the

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personality of the photographer eventually locates him or her somewhere on the broader practice field. The mentioned links to media and video could be linked to convergence which digital technologies encourage.

This theme aims to look for factors that speak of an identity that is being shaped in the process of learning photography. Although most students, teachers, and professionals indicated that they do not stop learning, a teacher participant stated:

> "I am not arrogant about this, but there isn't much about my medium that I am gonna still have to learn. (…) there is not really more knowledge in it" (STA2.1, 2016).

This statement made me wonder about the effect that discipline knowledge has on the photographer. When does the photographer experience a state of control over the medium, in the pursuit of possible mastery? In the interviews, we discussed the participant's practice; the learning, the teaching, the professional practice thereof, and the satisfactory photographic result that seemed to be a constant pursuit. The research question searches for factors that can influence the pedagogic orientation of creative practice education. It dawned on me, as I contemplated possible themes for the analysis and discussion, that the photographer, as a practitioner, also becomes the container of practice knowledge. This accumulated practice knowledge is expressed in photographic artefacts, which in turn, is an account for the teaching and learning process that has taken place.

A teacher participant commented:

> "The embedded knowledge in the artefact actually allows you to show the embodied knowledge of the pedagogy practice that we do" (STA2.1, 2016).

It was not clear whether this reference to the "show of embodied knowledge" is evident only to the specific teacher, associated to the specific teaching situation, or whether it is general evidence of being an educated photographer. I would posit that it could be any of the three. Firstly, the teacher should be able to see evidence of the specific teaching and learning process (of an individual) in the related creative practice work, and secondly, it could be possible to detect a level of accumulated practice knowledge (of an individual) in the creative artefact.

Student practitioners craved the exemplified individual practitioner in the photographic artefact. Furthermore, it emerged from the data that students want to see recent photographic work that the teacher produced. The students also wanted a teacher with industry experience; they wanted to see the teacher through the photography of the teacher and know that industry has influenced the photographer-teacher. They understood that the context in which you produce photographs is marked by that context. It is evident that there is a yearning to learn from a context-standard that they aspire to and a future "industry" that they are working towards. It could also be a practice-identity acquaintance. Students want to know who they are dealing with now, as opposed to who this person was in the past; knowing the current identity seems to provide vital sustenance for the immediate confidence they need in in the relatively short apprenticeship time they have during formal education. Students seem aware that technologies change and therefore want to see teachers' creative practice work that are not "older than three years" (STU2.2, 2016). There seems to be a distinction between a historical reference of images produced in the past, either by renowned artists, or their teachers, as opposed to the importance of presence of pedagogic immediacy.

Teachers seem to practise as much as their circumstances allow. A teacher participant related that he does "practice a little bit within the wedding industry (…) mostly on a very selective basis" (STA2.1, 2016). Another teacher participant indicated that "I go help people with weddings" because it is related to his research dealing with the ritual" (STA3.1, 2016). Academic research seems to be another way of practice engagement. A teacher participant states that while "(…) doing the PhD (…)" she has "(…) learnt quite a lot, even about the practical (…)" (STA4.1, 2017).

A teacher participant established a practice-identity acquaintance at the beginning of the academic year by showing "a range of work from commercial work to street photography, to documentary, to food photography" (STA2.1, 2016). He states that photography is "a live thing", and that he wants to "establish (…) in them (…) [a] (…) commitment (…) to try and get them excited about the medium" (…) "instead of this just being a career" (STA2.1, 2016). The idea of positioning the individual within their photography is evident. There seems to be a particular drive by teachers to get students excited, instead

of just preparing them for an ambiguous industry future. Sennett (2008) indicates that the "excited" worker "is willing to los[e] control" to "make discoveries [and] stumble on happy accidents" (p. 113). From the above teacher response, it is noted that they understand the effect of intrinsic motivation derived from extrinsic motivation. Even the word craftsman, according to Sennett (2008) "is a compound made between public (…) and productive". Traditionally "[t]o become skilled, required, personally, that one be obedient" (p. 22). The student should then be "obedient" to what the learning environment can facilitate. A teacher participant enjoys going with students on photographic shoots, stating; "(…) I like taking disciples with (…)" (STA2.1, 2016). This reference to discipleship, seem to evoke an obedience through love for practice, rather than an obedience to a teacher authority.

A duality in operation is evident. The teacher, or "leader" (…) "provides followers with a sudden illumination of the path to be followed" (Sennett, 2008, p. 264). For Sennett, this "motivat[ion], provides the ambition to others". I would describe this as Etic teaching influencing the Emic learning of the student. Additionally, I would posit that practice teaching is an Emic-Emic connection, which is Etically facilitated by educational circumstance.

Sennett then refers to the scientific vocation that is "meant to arise from within" where "formation is most important". I would relate the Etic reference to a more outsider Pedagogic (teaching) and Andragogic (leading) approach, and the Emic reference to a more Heutagogic (self-managed) insider educational orientation. From reading the data, I am inclined to relate the crafting of a photography practitioner to both accounts. The teacher needs to motivate and teach by example, while the student continues to actively learn in a ""slow" manner through habit" (Sennett, 2008, p. 265). I believe slowness in this reference relates to thoroughness to change habit, or practice nature, unlike an educational approach that struggles to complete the syllabus. The photography pedagogy should then extrinsically guide the intrinsic desire to become a photographer. This intrinsic desire starts with the teacher.

The process described above could then lead to a participating voice of the photographer within the practitioner community. The voice that is referred to here is the expression of making. Sennett (2008)

refers to the study of the "loss of skilled movement" (apraxia) and the "loss of the ability to use or comprehend words" (aphasia) (p. 180). It was found that when a neurologist deals with patients that suffer from both conditions, dealing with the loss of skilled movement first, helps people to "understand [the] language of instruction". I would associate the lack of practice "movement" as the pedagogic focus that will enable an understanding of the visual language of photography, practically.

A teacher participant is adamant that "watching someone practise is very important" (STA2.1, 2016). An industry participant is of the opinion that the photographic output "is the pinnacle of the whole process in our industry" (IND2.1, 2017).

> "It's about producing the image that speaks to you and communicates to you in a way that you want it to (…)" (IND2.1, 2017).

Voice then, emanate from the photographer's practice and becomes the visual language of a photographer. A participant refers to "seeing someone" doing something very well and suggests that "what they do is a part of who they are" (STA2.1, 2016). A participant described the ability to voice what is happening around you as a "message you want to communicate (…) saying, basically what other people can't say sometimes" (IND4.1, 2015). I would posit that it is because they lack the skilled movement (apraxia), in a photographic sense, which the trained and experienced photographer acquired over time. Bakhtin (1981) refers to the "language of professionals", which I will relate to the language of professional photographers when he states that these professional "languages" are:

> "(…) filled with specific content, they are made concrete, particular, and are permeated with concrete value judgments; they knit together with specific objects and with the belief systems of certain genres of expression and points of view peculiar to particular professions" (p. 289).

I would suggest that the professional photographers" voice is "knit together" by social influences since its inception. A teacher participant reiterates this by commenting that students don't know the history of the photography genre they engage. They don't (…) understand the importance of the work that has gone before" (STA2.1, 2016). It could then be said that teachers are supposed to point students to the past, to enable them to speak as individuals in the future.

Inspirational voices (photography works) of the past and present could then provide a vocabulary from which students can choose. A teacher indicated that at the launch of a project, "[W]hen briefing them on every technique I'll be showing them examples. (…) the examples I'll show them will be to stimulate them visually (…)" (STA1.1, 2016). Another teacher stated that he also shows his work because "I am a practitioner (…) [students] should be seeing my work" (STA2.1, 2016). A student believed that "(…) with the master and apprentice thing, I think is one of the biggest examples of learning from one source" (STU4.1, 2015). The creative practice work of the teacher, as the master, seems to strengthen the authoritative voice of the teacher-practitioner. On hearing that voice, students eventually seem to want a voice of their own, instead of just repeating what someone has already said.

> "(…) I want that voice, but then, for me to have that voice, I have to be more free in my work. And (…) to get that voice (…) my work has to reflect on me first, before I can tell it to someone else. It's going to be (…) a reflection on me. (…) you have to see my personality; you have to see me there. (…) after that, after I have broken that barrier, after me being free in it, then that's where my voice is gonna be" (STU3.4.1, 2016).

Sennett (2008), in a discussion on "presence", refers to the marks brickmakers left on their bricks that declared ""I exist", rather than "I resist"" (p. 135). It was a way of making their "presence" (pp. 130-135) known. For me this expresses the desire to be heard, sending that "urgent signal" not of resistance to what they are going through, but voicing a unique presence, ""I am here in this work" (Sennett, 2008, p. 130). From the data, it is apparent that students do not seem to resist the guidance from their teachers towards a distinctive visual vocabulary, but instead seem to desire it from their masters.

Unlike the craftsman of old, teachers do not have the privilege to work on their own practice or work side by side with the students every day. A teacher referred to this context about his creative practice work:

> "(…) a lot of [my photographs] has not even been finished. (…) I can take a RAW file and work the image and take [students] through the process of that craftsmanship, or we could do a workshop and I can show them examples of what I have done, and how I get to that outcome (STA2.1, 2016).

The teacher's comment above seems to illustrate a compromise between the traditional craftsman and the current creative practice teacher. While working the RAW file, the teacher engages with practice the way he or she would have engaged with it in a standard professional manner. The teaching context,

in this scenario, could speak of the hybrid craftsmanship environment where teachers are educators by profession first, then photographers, adjectively. In this particular context, they are not only educators but also practitioner-educators that have to inspire students in a manner that augments the HE educational setting. They could be seen as craftsman(woman) teachers, not only crafting their photography practice but crafting educational practice through their photography.

It was evident in the interviews with teachers that they are confident in their practice ability. This confidence is likely ingrained by previous experience, whether in industry or personal work. There was no overwhelming evidence of current industry practice surety. The industry engagement, if any, was hesitant. This hesitance seems to shift the authoritative identity from practice authority to teacher authority. I would propose that this scenario could promote educational respect over practice veneration. Furthermore, I would flag this as a concern that might not necessarily be solvable in current HE institutions, unless practice as research, and industry practice contact is promoted by educational policy.

The data indicates that students want to see the teachers' creative practice work. They want to see the teacher's work "to get the inspiration from what he is doing" (STA2.1, 2016). There is an indication of a shift in inspirational emphasis as students progress from a lower level to a higher level of study. The student realise that their work also needs to be inspirational at some point, "becoming a person" (STA4.1, 2017), as one lecturer put it. Teachers want students to develop their practice voice to become a practitioner authority, as opposed to being a good HE student. A teacher stated that he:

> "(…) want[s] an individual that, after he's gone through three or four years (…) of education, of practicing, to actually have an opinion on the work, and tell me, no, I am doing it this way, because this is how I am taking my medium forward" (STA2.1, 2016).

This response indicates that practitioner teachers practice their education in a manner that promotes individual students becoming authoritative practitioners. It seems as if students realise this educational context within which creative practice is nurtured. A senior student comments on this form of personal guidance:

> "You have to develop on your own. You don't (…) see actually, each and every day what the master produces and does. (…) if you don't see everything you (…) might actually start to develop your own ideas, your own vision, and that may help not to copy from your masters" (STU4.1, 2015).

It is evident that there is a stage in learning maturity that leads to photographer maturity. Sennett (2008, p. 89) believes that the "motto of enlightenment"; "hav[ing] the courage to use your own understanding", is to mature. He states that:

> "Immaturity is the inability to make use of one's own understanding without the guidance of another".

For me, a special practitioner relationship between the other and the self is suggested here. Here I am not referring to the other as teacher and the self as the student. Instead, I wish to relate self-practitioner, being guided by the other-practitioner in a reciprocating manner. This living network-ing, I will suggest, is facilitated through observation. Observation, in this sense, goes beyond looking. Practice and observation seem to be joined to a knowledge conception that can produce a unique identity. Observation seems to be a life form for a practitioner that draws on the nature and practice-life of photography practice.

I would further suggest that the previous two themes, which address the distinctive nature of the medium, and the processes that defines photography knowing, cultivates a photography identity. The theme *Crafting Photography Identity* is directed at the photography persona, as opposed to the two previous themes that are more generic in purpose. This individualistic process is only possible through external (Etic) facilitation of an internal self-directed (Emic) process. Then, this photography identity flourishes as a unique, idiosyncratic signature, which is not identifiable by greatness as much as individuation.

Signature, unlike a representative stamp, is then also unique in each rendering. It derives from a physical living interaction, becoming a mark that is uniquely individual. A photographic artefact could then reveal this uniqueness.

It is evident that this uniqueness may be a structural element that is not always glaringly visible. An industry participant agrees that an image carries a practitioner voice (IND2.1, 2017):

> "For me this is a personal experience, so yes, my voice is inside that if people can see that or not, but I, for me, it is there" (IND2.1, 2017).

A student participant stated that she does not "(...) get it when people say, I found my voice, but then there is no sense of them in their work" (STU3.4.1, 2016). It seems as if the presence of the voice is "inside that image" (IND2.1, 2017); I am part of, part and parcel of a product [photograph]". The industry participant further states that "(...) in essence, (...) I'm creating a frame, here in which I've composed something" (IND2.1, 2017) A teacher participant refers to "the holiness of the frame" (STA2.1, 2016):

> (...) and this little thing over here this print here, is, is in a way, it's a little world of itself. (...) there's things inside here that happens (...) which I, to a large extent, put there" (IND2.1, 2017).

Using the full frame of the camera is always regarded as a great achievement among photographers. There is no waste in image quality in what the exposed film or sensor would allow. More importantly, the photographer exhibits an aesthetic command, or "craftsmanship" by "placing the different elements within the frame" (STA1.1, 2016).

A teacher participant is very aware of this world that is created with "things inside" (IND2.1, 2017) the little world that makes the photograph uniquely yours. He explains:

> "I'm excited about micro composition. Where you stood, and you saw that little thing three kilometres away in the photograph (...), and you actually took cognisance of it" (STA2.1, 2016).

This observational sensitivity of being aware, as a teacher, could then influence the students to start noticing all the elements that construct the image. It seems like an educational directive, from the master, to take authority, to actively "put (...) things (...) there" (IND2.1, 2017).

There remains an element of risk (Pye, 1968), play (Greene, 2012), and surprise (Sennett, 2008) that makes this "little world" (IND2.1, 2017) unexpectedly unique, similar to the world we exist in. An industry participant reiterates that "[t]here's also unexpected things that happen inside there, that I didn't see or didn't pre-empt" (IND2.1, 2017). An industry participant, as photography observer,

acknowledges unexpected things that can contribute to the image, affirming; "(...) but [that photograph is] not just my voice" (IND2.1, 2017).

These multiple voices speak to "co-authorship" as an "utterance" (Holquist, 2002, p. 12) of the photography world through the photographer as a "medium" of these voices. An industry participant refers to this dialogic encounter as not necessarily "(...) a very engaging conversation. It can be a space that you move into as well" (IND2.1, 2017).

The depiction of the "little world" (IND2.1, 2017) as a photograph, requires the photographer to move into this space, dialogically, not necessarily audible, but in a self-reflective (Schon, 1983) manner. Space then becomes a "mental space where you move in" (IND2.1, 2017), such as the "darkroom" (IND2.1, 2017) space, which could be referred to the photographers "quiet time" (IND2.1, 2017) or conceptual space. This space, according to an industry participant, requires "patience" (IND2.1, 2017).

Time seems to be a significant factor in the development or Crafting of a Practitioner Identity.

What then requires time? Is it the development of personal mastery? An industry participant exclaims:

> "Mastery is becoming redundant. (...) Life as we know it today has become too fast and diverse" (IND2.1, 2017).

Mastery, in the traditional sense, seemed to be an unrealistic expectation for this participant. The impression is given here that a single craft focus is not a viable commercial and social option.

> "(...) for me, mastery is to be able to get through the day and to make as many ticks that I have accomplished, instead of doing one thing properly. By doing one thing properly, I've not met 20 other things at all" (IND2.1, 2017).

On the one hand, there is a perception of mastery that appreciates superior achievement in a particular craft, such as a sub-genre of photography, and on the other hand, a general command over a field or occupation. Sennett (2008) states that "[a]ll craftsmanship is founded on skill development to a high degree" (p. 20). Mastery, within this context of craftsmanship, is described by Sennett as "(...)technique [that] is no longer a mechanical activity" where you "worry(...) about [the] procedure". He states that in this condition "people can feel fully and think deeply what they are doing once they do it well".

For me, the references above do not describe mastery as a singular focus of activity, but rather a focus on *how things we do are done*. An industry participant is of the opinion that:

> "by drawing on different knowledge skills sets, I should be able to get to that conclusion where I need to get to by using different things to get to the same result. And I wonder if mastery, in future, is not going to be much more based upon that" (IND2.1, 2017).

The commercial photography course aspires to equip future photographers with skill sets that will make them economically viable individuals in a very complex creative industry. For Greene (2012, p.63) "[t]he future in science does not lie in increased speciali[s]ation, but rather in the combining and cross-fertili[s]ation of knowledge in various fields".

It is clear from the range of literature on photography that this creative practice is technologically dense, and technically demanding. It is evident that over time, the photographer practitioner can reach a level of contentment with the medium. This is the time it takes photography practitioners to reach a level of competence where they feel "they [are] do[ing] it well" (Sennett, 2008, p. 20), transforming the medium of photography into a degree of personalisation. A teacher with more than twenty years of photography engagement states that he is "very comfortable with [his] medium. It's like very comfortable clothes that you wear" (STA2.1, 2016). For Polanyi (2005), the reference to "personal knowledge" becomes a way of:

> "(...) liv[ing] in it as in the garment of our own skin. Like love, to which it is akin, this commitment is a "shirt of flame", blazing with passion and, also like love, consumed by devotion to a universal demand" (pp. 66-67).

The literature on craftsmanship that was referred to in this thesis exemplifies the ability to flawlessly execute the necessary action required to complete the task. I would want to move away from the appreciation of mastery as an ability, a public display of what I can do because of repetitive conditioning. I see this outward ability as a possible craftsman veneer. However, pedagogy, should deal with the educational principle of drawing out. This drawing should then be from somewhere. That somewhere is then the inner being which cannot be seen.   Can we then see this inner sensibility?

Observation is a personal trait. I would posit that the process of individualising is facilitated through personal observation. However, as observation can inform, practice is the utterance of our "skilful knowing" (Polanyi, 2005, p. 72)):

> "If, (...) the meaning of all our utterances is determined to an important extent by a skilful act of our own—the act of knowing—then the acceptance of any of our own utterances as true involves our approval of our own skill".

The link between observation, as an input, and the photographic utterance is understood by some students. A senior student participant comments that:

> "(...) you should observe what is going on around you. I mean the most important thing for a photographer is the environment you shoot in. It's also with the framing. If you don't completely observe everything, you can put something in the frame that is not intended to be in the frame, and that can set you back, (...) you have to reshoot, you have to spend more time editing it out of it is possible or the thing that's in the frame is so distracting that it completely throws the viewer off the message" (STU4.1, 2015).

Another student articulates his process of capturing a photograph, at length:

> "I like [to] shoot [in] the townships in order to reveal how (...) these people, are living on a daily basis. (...) I wanted to show the environment where the (...) traditional healer stays, and (...) the structure of the house they are staying. What is happening around the place. (...) there is a short [small] (...) traditional house. (...) Its roof, (...) with grass. And then, it's the main house (...) where he stores everything that (...) he's working with, healing people, and stuff. And here, there's a small cage where he puts his chicken (...) He decorate his house with this, (...) traditional clothing and there is a chicken inside. It stays outside in the cage but at this time of the day, it usually goes inside the house, (...) it's searching for food (...). I went to this place before. (...) I've spent almost two hours watching what is happening inside the yard. What can I shoot here? Should I include the traditional healer in order to show that this is (...) a place for a traditional healer? (...) I just didn't know if I should include him. I wanted only to include his home, without him. And then if ever anyone can see that (...) this is a different place than these other places. Surely (...) my visualisation (...) has been, (...) successful(...). Anyone can see that this is a, (...) different home than these other homes" (STA2.1, 2016).

In follow-up questions, it became clear that the extensive observation of this situation led to a question whether he should "include the person" (traditional healer) (STA2.1, 2016), or not. On the day of the shoot, the chicken happened to be in a place that "made [the photograph] successful" (STA2.1, 2016).

I would then suggest that the educational environment should allow for *freedom* (STU3.4.2, 2016) to choose their own *frame*. The frame that the photographer looks through seems to be a sacred visual space for the photographer. Furthermore, I would posit that this framing speaks of positioning the "borders" or identity of a photographer. Sennett uses the term anthropomorphosis (Sennett, 2008, p. 136) when material objects are given human qualities.

The research question framed my expectations by asking for factors as if factors could be elicited straightforwardly from participants. I searched for not formulaic components that constitute a recipe for good practice education. I realised from the data that there might be individual opinions from the selected participant group, which could change if another group were to be selected. It became clear that factors lie much deeper than opinions, making the educational factory "profitable".

A pedagogy for photography practice, in my assessment, should benefit the aspirant practitioner. These practitioners do not seem to aspire for greatness as much as a practitioner disposition. A pedagogy that fosters this need should empower the aspirant practitioner to dispose of and make-over. This is best done by each practitioner and I would then propose a practice pedagogy that crafts individual practitioner images according to individual traits, talents, gifts, strengths, motivation, and potential.

As the object of this research, a pedagogy for photography practice conceived the coding structure in chapter four, which inspired categories that resulted in three major themes for analysis. The research question reflexively guided the pre-analysis and analysis process of the research. The three major themes, The Craft of Photography Practice, Crafting Photography Practice Knowledge and Crafting Practitioner Identity, speak to a form of individuality in a critical sense.

Crafting of Photography Practice Knowledge discussed subcategories as forms of knowledge authority and how this authority influences a photography practice pedagogy. These subcategories include the educational environment as an educational context in which the education take place, the individuals as practitioner role players that are knowledge conduits for a pedagogy of photography practice, the discipline of photography with its theoretical and practical knowledge conceptions, the photographic industry as receivers of the pedagogic effort, and photographic technology that makes photography possible.

The notion of pedagogy deals with the leading (education) of the individual. Shulman (2005) suggested a Signature Pedagogy, which would prepare the student for a specific industry. In my view, the idea of

a signature pedagogy rises above theoretical conceptions that are confined to the philosophic debates of the academy only. I see Shulman's idea of education breaking the thinking barrier that protects the academy ivory tower by looking outward. This emancipated view, is not possible if the industry mirror does not inspire the vision. The concept of the signature pedagogy is then a steppingstone away from theoretical conceptions and closer to industry-relevant approaches to teaching and learning.

Throughout the themes, it became clear that there are functional and ideological considerations to the pedagogical concept. I will classify functional considerations as the how of pedagogy and the ideological as the why. I see the outside influencers as etic factors that contribute to understanding pedagogic methods. The inside influencers are emic factors that guide the approach to broader pedagogic approaches.

Chapter 6 summarises the thesis chapters towards the findings and contribution of this research.

6   Conclusion

The research question framed my expectations by asking for factors that could be elicited straightforwardly from participants. I searched for non-formulaic components that constitute a heuristic for good practice education. I realised from the data that there might be individual opinions from the selected participant group, which could change if another group were to be selected. It became clear that factors lie much more are much more profoundly than opinions, making the educational factory "profitable".

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The following conclusions summarise the thesis chapters of the findings and contribution of this research.

6.1 Overview of the research process

Through the title of this research, I proposed that there are generic practice values embedded in the notion of craftsmanship, and that these values could advantage a photography practice pedagogy.

The aim of this research was to understand photography practice better to suggest a pedagogic approach for photography practice education. This aim was achieved through the various objectives stated in the introduction.

There were four foundational objectives for this research that informed a fifth objective as a conclusion and finding. The first four objectives probed, 1) an ontological understanding of what photography is,

2) utilising a reflexive research method throughout the research to interpretive related literature perspectives and participant understandings in the main research, which could be 3) analysed towards 4) conclusions that would propose an approach towards photography practice pedagogy. The fifth objective was to suggest a photography practice pedagogy.

 The search for factors that may influence a photography practice pedagogy started in the introduction of this research. I regarded anything related to the teaching of photography practice as a potential influencer. In the spirit of reflexivity, I acknowledged my biases, history, knowledge perspectives, practitioner preferences and educational status at the time. These biases were not bracketed out but were managed through the reflexive orientation of this research process that allowed me to challenge my assumptions during the research.

The contributions to knowledge in this study is embedded throughout the thesis. The search for influencers that impact on photography practice pedagogy primed me to draw inspiration from critique on Higher educational settings, photograph history and theory, pedagogical principles and thinking on practice.

The conclusion of this research starts with a narrative overview of the research process, before suggesting a proposed pedagogic approach and character for photography practice.

6.1.1   Chapter 1: The introduction

The research starts with a contextual foundation in an HE institution with a vocational, industry-related bias. This institution has undergone significant transformations during its existence. I identified the numerous institutional transformations during its existence as educationally questionable, which seem to undermine its core educational status for purpose. I proposed that the effect of this status change is to the detriment of practice knowledge, specifically creative practice knowledge in the form of

photography practice. I related this change to other institutional changes internationally, which reported similar concerns.

I probed the foundations of craftsmanship, the notion of craftsmanship, its decline, and possibilities as a context for practice reasoning. Pursuing the values related to craftsmanship practice was used as a mirror for practice reasoning instead of suggesting craftsmanship as a practice approach.

6.1.2   Chapters 2: The literature review

In the literature review, an ontological perspective was preceded with a context of photography education since its inception. This overview provided a brief historical and current perspective on course orientations. It is noted that most vocational courses incorporate more theoretical perspectives into their course. It is argued that most of these changes are not well planned and result in a loss of clear course focus. There is also no evidence that the institutions' purpose in courses are strategic decisions related to industry requirements. Furthermore, staff seem to differ on course orientations and emphasis, which adds to the uncertainty about teaching and learning approaches.

A natural need for photography is forwarded by Bourdieu (1990), which I contrasted with systemised institutional programmes that conflict with this basic need. The ontological discussion introduces notions of image formation through different perspectives noting the obsession to fix the world permanently on a surface. The discussion highlights the different views on image formation during the development of photography as a technology. Batchen (1994) provides an interesting notion of desire for fixation of imagery over technological development and readiness, which I relate with the birth of photography. Through Batchen's reasoning, this birth of photography relates to a human desire that directs invention fulfils the specific desire.

A conversation away from the radiation to illumination and ambient array, instead of lens directed light, provides an interesting context to the notion of the influences on the photograph and the photographer

at the time of exposure. This ecological view portrays the photographer as a perceiver of stimuli other than the light coming through the lens. Additionally, the idea of the in-between is emphasised in the discussion as a layered process in photography. The obvious in-between is the tool or lens between the photographer and the world. The lens becomes the camera's super eye to see what the natural eye typically misses. As apparatus and the photographer's prosthetic or artificial eye, the camera provides monocular vision instead of human stereoscopic vision as technical images that are seen as accurate inscriptions or representations. This technical mechanical device became a digital device, which again changed the modality of the in-between from analogue to digital. As a universally connected language, the digital allows for participation and inclusion and provides an analogue/digital adaptor to photography participants, allowing access to digitality.

The new perception is also challenged by recognising the similarities between analogue devices and digital devices. One of the changes is identified as the digital making of images compared to the analogue notion of taking. The emphasis here is on the loss of contact associated with digital technology instead of the surface contact stages in analogue photography. This reasoning influences the way craftsmanship is associated with photography in digitisation.

The discussion also highlights the proliferation of imagery and image-making in general to the extent that people are not easily surprised by images anymore, which professional photography must counter with images of value. The smart phone is now a serious imaging device which has almost perfected the concept of automation, making photography accessible to all. Automation is also discussed as a power that consumes the photographer, contending for picture taking authority away from the photographer.

For some, digitisation means photography, not post-photography, relegating analogue photography to pre-photography. This thinking influences the way we perceive photography as becoming photography instead of photography and subsequently changed. In this form, photography for Flusser (2000) is a post-historic product of scientific text, which replaced linear text, making text magical through imagination.

The discussion addresses the photographer as a professional about the medium of photography. An overview is given on what the aspect of professional contributes to being a photographer. I contextualised the act of seeing photographically with normal observation, highlighting the difference between a camera operator and a photographer. I proposed that craftsmanship helps the photographer see beyond mechanical and technical restrictions. I reiterated this fact in suggesting the pedagogue's task is to take the prospective photographer beyond technicism. The discussion led to how photography can assist the user in seeing differently. The uniqueness of framing through technology was presented in support of photography being unique and not in competition with any other image-making technique.

The notion of in-between is extended to the photographic image being transparent and allowing the viewer to move into the photographer's world. What we observe in the photograph as art or commercial is not clearly defined, matching Deschin's (1960) statement that photography can only be art if the photographer is an artist. I contrasted the artistic notion with the term professionalism, usually a service that satisfies the clients' needs. The discussion includes Szarkowski's (2009) view that photographers are what they are because of other photographers' impressions on their consciousness. Commercial photography becomes a manipulated "lie", which the photographer must realise and use to direct the public eye to what the client wants them to see. Commercial photographs were also discussed as pieces of history that reference the past and are seen in the future.

A discussion on photography teaching and learning followed. For this research project, I investigated the notion of pedagogy and most of the major abstractions such as andragogy, geragogy, metagogy and heutagogy. I hoped to find a theoretical interpretation of teaching and learning that would fit, or be adapted, for a creative photography practice pedagogy. All these theoretical concepts were relevant to general teaching and learning principles. None of these concepts aligned with practice specifically. The notion of a signature pedagogy was considered but felt like a compromise, staying within the theoretical domain of pedagogic thinking that conceptually aligns with classroom teaching and learning.

The discussion of practice knowledge explores the Bauhaus as crafts workshop where technology, art, and later science were seamlessly interwoven in a practice education environment. Pedagogy as a contextual construct for this research is then explored theoretically, followed by the concept of the pedagon as a place of contestation in teaching and learning.

6.1.3   Chapter 3: Methodology

I used a reflexive research methodology as an overarching approach to the research process. I positioned myself as a teacher and photographer before discussing the epistemological space in which the data was to be collected. I defined the epistemological space as the craftsman-being. The research object is a photography practice pedagogy that constituted the teaching approach in the epistemological space I defined. The emphasis on the people who are taught, or part of the teaching environment is crucial.

The epistemological conception of making is then clarified to align the theoretical underpinning of this research with the practice philosophy of the methodology. The notions of values in this research are briefly discussed before the general research orientation discussion, leading to a discussion of reflexive methodology. The reflexive approach allows for a reflexive interpretation which becomes a meta-theoretical position that can incorporate all other forms of interpretation. The reflexive approach allows for reflection between standpoints, including my interpretations. The reflexive approach also allows for reflection levels to reflect in one another.

The research process is explained through a semi-transparent, layered model, with each layer representing an aspect of the research process. Pauses in a reflective cyclical manner allow reflexivity for me as the research instrument. The discussion then leads into the research question development process. I considered multiple questions in the pilot study but realised that the multiple questions could be distilled into one overarching question that could serve the purpose of many more minor questions. Any factor that could influence the approach and method of teaching photography practice was included in the final question that served the research process and consequently, the outcome.

As a method, semi-structured interviews were chosen to elicit participatory views dialogically and transparently. The transparency and dialogic nature of the data collection method necessitated an Emic and Etic exploration of the data collection process. The use of artefacts was then discussed to focus the practice-based discussions. The data sampling strategy, validity, and reliability are briefly discussed before the pilot study for the synopsis.

6.1.4   Chapter 4: Coding and data analysis

The data were fairly complex and required Atlas.ti to manage the coding process of the data analysis. In Chapter four, I detailed the process of data sense-making and processing towards categories. The categories provided a lens from which I look at the multiple code groups, reflecting on the data as a whole. The data, represented as categories, appeared clumsy and made meaning extraction difficult. However, after much reflexive engagement with the data in this way, it became clear that themes were emerging from the constructed categories. Three themes were identified from the four categories. Rigorous engagement with themes revealed a connected nature in the data that was not obvious at the onset of the analysis. Nature as an underlying notion of the research pursuit emerged. The theme nature of the medium intertwined with the character of the knowledge of the medium as a theme. These themes seemed to provide perspectives for the character and nature of the photographer persona that is shaped by the two supporting themes. The process of thematic discussion led to two categories of answers for this research. I referred to the two categories as levels.

6.2   Findings

Pedagogy speaks about people interaction. As the object of this research, the search for a pedagogic approach suitable for photography practice facilitated networking with an interesting scope of knowledge fields. The limitations of a doctoral study provide ample opportunity for furthering aspects of this research at a later stage.

This research is primarily about my interests and my search for understanding. Secondly, it is about students and teachers in similar learning environments seeking clarity on how the pedagogic idea can be understood and expressed in a creative practice educational environment.

I believe the thesis on the topic, "Towards a pedagogy that promotes the values of craftsmanship in a photography practice programme", provides a valuable contribution to the teaching and learning of photography and other related creative practice educational fields. This contribution was achieved by a guiding research question that asked,

> "Which important factors can be identified as influencers to the approaches and method of photography practice education?"

The research question provided a singular focus and enabled reception to as many influencers as possible.

The reflexive methodology employed in this thesis provided the reflective mechanisms to engage and interpret information from wide-ranging perspectives. However, as the title suggests, it is a process "towards" an approach to teaching photography practice, not a conclusion. This open-ended descriptor invites further contributions to the discussion on pedagogy.

The research process unfolded in a manner that took on its own life. This "life" promoted dialogue with the data, which seemed to access a latent and more emic conclusion to the research question.

It was not as much unexpected as unplanned. There are two closure levels that can perhaps be described in the following manner. The first level constructed closure and followed a thorough but structured research process. The second level formation from research elements could emerge when the researcher pursued an emergent notion, not knowing exactly where this pursuit will lead.

What emerged from the research is what I would posit as factors that change the narrative of the educational conversation somewhat. Ambiguity seems normal when creative education pedagogy is

discussed. This ambiguity might be because the pedagogic conversation could be in the wrong place. The ongoing pedagogic debate is informative when it is confined to fields other than creative practice.

Student, teacher, and professional practitioner participants seemed thoroughly preoccupied with their practice and practitioner status. This phenomenon also surfaced during the literature review when notions of practice and the craftsperson were discussed. My thinking was directed towards practice as the descriptor for pedagogy.

The practice of photography differs from other forms of creative practice where the hand is used as the means to inscribe. Traditionally, the craftsman reshaped and repurposed raw material, such as gold, stone, and other materials, resulting in an artefact. It can be said that the craftsman's practice implied contact of the hand with the material that transformed into the artefact. However, the craftsman mainly used tools to engage the material, removing direct hand contact with the evolving artefact. Artists like painters and illustrators viewed the scene and interpreted that observation on a surface with drawing or painting utensils. As with the craftsman's artefact, the drawing or painting is a result of the tool, as an in-between, but more as an extension that provides hand-surface feedback.

The photographer works with light inscribed on a surface or relayed by photoreceptors on the digital imaging sensor of the camera. It can then be argued that the photograph or digital image is not an artefact made by the photographer's hands and is therefore not a craft-like act. Firstly, this research is not advocating craftsmanship per se, but the values embedded in craftsmanship practice. Participants aspired to values that help them critically reflect on their practice while connecting with their practice and resulting product. Hand contact with the artefact surface, in this sense, is then not a principle in my reasoning of craftsmanship values. Secondly, photography inscription as a visual representation is by light. It is argued in the thesis that the lens that directs the light into the camera turns the camera into a "supereye" or extension of the natural eye. Although the light is "objective", borrowing from the French term for a lens, the decision of how that light is applied remains subjective.

The combination of technological, scientific, and creative practice, through examples of Moholy-Nagy's (1947) Bauhaus pedagogic approach, illustrates how the practitioner is drawn into a process of self-discovery through their practice. The Bauhaus example in Germany and the United States were short-lived. I believe many examples of successful courses led to excellence internationally. Furthermore, I believe these individual approaches should be celebrated. The practice pedagogy that this research proposes is not an alternative to any successful creative teaching approach. I believe this pedagogy offers an identification and a teaching and learning approach that could assist other approaches by classifying what pedagogy as a concept could constitute in photography education. A practice pedagogy is appropriate as it embeds the nature of the epistemological orientation at the centre of the teaching and learning engagement.

Practice, in this sense, becomes the object of the pedagogy. Traditionally, leading is perceived as the object of pedagogy because the pedagogue leads the learner in the process of learning. When practice becomes the leader in a practice pedagogy, learning takes place because of practice, not because of the practitioner teacher, the syllabus, the environment, the technology, or a theoretical interpretation of the medium. These aspects become influencers of practice and therefore the practice pedagogy. When practice is accepted as knowledge, wisdom from this knowledge will be practice based.

Influencers of a practice pedagogy must then be subject to practice. A practice pedagogy allows for an interpretation and orientation of practice, without removing practice from the core of the pedagogy. Fine art or vocational photography is then the prerogative of those that direct the course. There should then not be an epistemic drift, away from practice in Universities of Technology, whose mandate supports practice excellence. A practice pedagogy positions practice as the authority and invites any of the influencers mentioned to support the authority.

When students accept practice as authority, they will excel in practice. When teachers promote practice as authority, they will create an environment that supports this authority. When management acknowledges practice as authority, they will create support structures that will strengthen its authority.

Colini's critique of institutionalisation rises above a debate between the traditional as opposed to vocational university. His critique speaks of an academy to corporate drift that is devaluing what education is in general. Photography practice education is about the practice of photography. Institutional priorities such as excellence, impact, and continuous improvement can negate the pedagogic authority. The institution, as authority, then becomes the pedagogue, leading faculties, which leads departments, which lead courses, and so on. I suggest, through practice, the student practitioner takes charge of their own education.

From the practice pedagogy emerges the practitioner. Practice, in this sense becomes the tool of another artefact, the photographer. From the practice pedagogy, emerges a practitioner identity. I propose Identity Pedagogy as a further research development, which shapes the photographer through practice.

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8   Annexure 1

Participant Information Sheet

The title of the research project

Towards a pedagogy that promotes the values of craftsmanship in a photography practice programme.

Invitation paragraph

You are invited to take part in a research project. Before you make a decision, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or, if you would like more information.
Please take time to decide whether or not you wish to take part.

What is the purpose of the project?

By the end of this project I will have a clearer idea about the teaching and learning approaches when teaching practical creative subjects. The results of this study will influence the way in which we can approach and teach the practical subjects in photography and media production subjects. The project will continue for the next two years and will consist of in-depth interviews with students, staff and professionals in the industry. The interviews will be transcribed, coded, analysed and written up in order to reach some conclusions and make some recommendations.

Why have I been chosen?

You are either a student in the photography programme, a staff member in the photography programme, or a professional in the media industry. I am conducting the research in the photography section of VUT and therefore hope to get a sufficient response from staff and students in the section. I also hope to engage professional practitioners that associates with the idea of valued and considered practice.

Do I have to take part?

No, you do not have to take part, it is solely your decision and even if you do decide to take part, you can withdraw at any time when you feel uncomfortable with the process. If you do decide to take part you will be given this information sheet to keep, and you will be asked to sign a consent form. You do not have to give a reason if you wish to withdraw during the research project.

What do I have to do? / What will happen to me if I take part?

We will have a conversation about what we all love to do, making visual artefacts. The process will be cyclical, which means that we will talk more than once, in a progressive manner. The interviews and focus group discussions will be informal yet guided. We will talk about projects that you are engaged with at the moment. In that way we talk about things that are real to you at the time of the discussion. The focus group interviews will take place in addition to the individual interviews. In the focus group sessions, we will discuss interesting responses from individual interviews that I might need some clarity on.

It would be great to see your planning and thinking behind your practice; in the case of lecturers and students, the project launch form, and the process that you follow during the actual project. Lecturers can also use their own photographs and images of other practitioners that inspires them. In the case of the professional practitioner, the brief/ commission, and any planning or process that has preceded the creative act. It would be great to have some of the mentioned examples before the interview date so that I can spend some time reflecting on your work, or what inspires you. The interview process will not take longer than an hour, and will extend to more than one session if necessary. More than one session might be necessary in this specific research design, which could shorten the individual sessions dramatically. We can agree together when and where a follow-up interview can be scheduled. The interviews will take place in the initial stages of the data collection process. Transcribing the interview will happen once the interviews are done. The transcriptions will be available to you if you would like to read them.

We will meet in a comfortable room around a table where we can look at visual examples if necessary. I will audio record the conversations for in order to have an exact copy of the discussion. You are welcome to ask for the audio device to be switched off if you prefer. I will be taking more notes if no recording is done. During the interview we will be discussing your impressions around the practice of photography and learning of this practice. The questions are open-ended and will be prompting discussion. A yes or a no will prompt me to ask an explanatory question.

The more relaxed you are the more you will enjoy the process. You are welcome to ask for a break at any time during the interview process. I will make an audio recording of the interviews in order to have an exact impression on what was discussed.

What are the possible disadvantages and risks of taking part?

There are no physical risks in agreeing to participate in the research. I will also code your person for writing up purposes so that no identities are revealed. As the course coordinator I will also not hinder any academic progress, participation or opportunity as a result of the interview information gathered. The information that we will share and discuss will be on the practicing

of your craft and not your academic progress or related issues that might reflect negatively on associates or colleagues.

What are the possible benefits of taking part?

Learning will be mutual in this research process. The interviews will be conversational around the mutual interest of photography practice, which will enable all participants to distil their knowledge towards better understanding.
Whilst there are no immediate physical benefits for those participating in the project, it is hoped that this work will give you an interesting look at in-depth research of this nature. I am sure that the experience will be another great learning event for both of us.

Will my taking part in this project be kept confidential? / What will happen to the results of the research project?

Your name will not be published in the academic write-up of the analysis of the data.

The data that is collected during this study might be used for subsequent academic outputs such as conference papers, workshops or further research.

What type of information will be sought from me, and why is the collection of this information relevant for achieving the research project's objectives?

The information that I will extract in the interviews will give me an insight into your perspectives of being a practitioner in your creative medium, and how you perceive learning and teaching in the practice, or making of photography. Also, the things that motivate you about your medium of practice, what you do not like or what you do like about making creative work? We will also be talking about the relationship between the technology, or tools, you use and the impact that it has when making creative work. Your frustrations, aspirations and achievements might come to the fore, but remember, it about your association, or connection, with the making process and its resulting artefacts, and not you directly.

Who is organising/funding the research? (If applicable)

I am doing this research in order to know more about the teaching and learning of photography practice. The research is towards a doctoral qualification that I am registered for. There is therefore no outside funder that can gain from this research.

Contact for further information

You can contact **me** at tmathee@vut.ac.za
Phone me on 016 950 9309 (office)
The department secretary:
Patricia Moolman, patricia@vut.ac.za 016950 0714 (office)

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Prof Emsie Dicks, Chair of FRIC (2017)

Vaal University of Technology

South Africa, +27 16 950 9279

Thank you for reading this information sheet

You will be given a copy of this information sheet as well as a copy of the consent form that you have signed.

9   Annexure 2

Researcher: Thins Mathee, Ed D (Creative and Media) 2016

Interview protocol for the research entitled:

"Towards a pedagogy that promotes the values of craftsmanship in a photography practice programme."

Research Question:

"Which important factors can be identified as influencers to the approaches and methods of photography practice education?"

Interview logistics

Interview setting

- A room the is comfortable, not in a noisy environment, good ventilation.
- A table and two comfortable chairs (or equivalent)
- Water for the interviewer and participant

Equipment

- Zoom H5 audio recorder
- iPhone for back up recorder (switch all phones on airplane mode to eliminate any cellular activity)
- Notepad and writing utensils

Welcome and Introduction to the research

- State the date and time, the participant code, the venue, and the research title.
- Thank the participant from their willingness to participate.
- Ask them if they are comfortable and if they are free to focus on the research for the next hour.
- Explain to them that an audio recording will be made. Ask if they have any objections to this
- Introduce the participant to the topic and research question to be probed
- Explain what the interview will probe and how project planning, examples of personal creative practice, project launches

Background Questions

- How long have you been practicing (student, teacher, professional practitioner) as a photographer?
- Which subject / aspect of photography do you like most and why?
- Do you have any future plans/ dreams / prospects?
  - Students- own business
  - Teachers- qualification, new projects, new career plans
  - Professional practitioners- studio, equipment, projects
- Can you describe your favourite / ideal student/ teacher/ client?

Creative making definitions and understanding

- My background is a photographer / audio-visual producer, and teacher in photography. I always approached my practice in manner that attends to detail and what some refer to as craftsmanship. Craftsmanship seems to be an illusive word that tries to embody the way in which we practice something.
  - Do you have an understanding of the term in your context?
  - Can you describe a creative act that, for you, embodies the notion of craftsmanship?
  - Can you give me a metaphor or an analogy for craftsmanship?

Making experience

- Can you describe your favoured/ ideal **place** to practice your photography?
- Do you prefer **working on your own or in a group** when you practice photography?
- What is your **relationship to people** in your practice?
- How can the notion of **craftsmanship enhance your making practice**?
- How does the world of **digital image making impact** on the concept of craftsmanship?
- Can you explain **the process** you go through before, during and after the making of creative practice?
- Are you **communicating** through your creative artefacts?

- o Do you think that the **artefacts have a voice** of their own?

- o Do you **discover something about yourself** in your creative artefacts when looking at them again?

- o Do you think other **viewers of your artefacts understand** what you tried to convey in your work?

  - Is this **important** for you

  - Do you feel that you have to **justify your intentions** to the viewer through textual communication?

  - Would you say that there could be a **difference between personal and commissioned work** related to artefact voice?

- Is there a **formula** that you adhere to when producing creative artefacts? If so, what would they be?

Learning of practice

- It is established that everybody learns differently. Can you describe **how you learn creative practice**?

  - o Probe approaches such as demonstrations

  - o Participation

  - o Learning from others

  - o Practicing alone

  - o Communicating your ideas to others

- How often are you **engaged** with making practice?

- Are there any **specific challenges** to your medium of practice that are working on currently?

  - o How do you deal with challenges in your practice?

  - o Are these challenges technical, aesthetic etc.

  - o Can you explain how you deal with practice related challenged specifically?

- Are you **inspired** by other practitioners?

  - o Can you describe **what** it is from these practitioners that **inspires** you?

  - o Can you identify what it is that **draws your attention** to another practitioners" work.

- - Do you enjoy **listening to the practitioner** talking about their own work?
    - What do you listen for when a practitioner talks about their own work?
    - What is the difference between a **practitioner talking about their work and someone else talking about** a practitioners" work?
    - Do you **want to see the actual work** when the practitioner's work is discussed? Why?
- Can you discuss the idea of **practice-confidence**, and how confident you are practicing your craft?
  - How do you build your **practitioner confidence**?
  - If **knowledge** is part of your confidence armour, can you explain what this knowledge is?
- Do you aspire to be a **master practitioner**?
  - Can you give some examples of what you do to reach a level of mastery?
  - Do you have **examples** of mastery in your creative artefacts?
  - Can you point out, through examples, your appreciation of mastery in other practitioners" work?

Teaching of practice

- There are many **approaches to the teaching** of creative practice. Can you discuss the approaches that you prefer?
- Would you **demonstrate** the concept that you are trying to teach?
  - How would you do this?
- Do you **enjoy teaching others** about practice?
  - Can you identify aspects that motivates you to teach/ explain your practice to someone?
- How do you relate **theoretical principles** with practice in your teaching?
- Do you think that the creative artefact is associated with the **practitioner's voice**? Why?
  - Do you think that the **artefact voice** can be taught? If so, how?
- Do you encourage students towards **mastery**? How?
- How would you teach **mastery** to others?

- How is process in practice related to the idea of a formula to do something?

Focus group

Focus group questions will emerge from the data from individual interviews and will be structured as needed for each focus group interview.

[identify responses that needs to be included in iterations]

creativity and craftsmanship

identity and craftsmanship

dialogue and craftsmanship

10 Annexure 3

Consent Form

Full title of project:
Towards a pedagogy that promotes the values of craftsmanship in a photography practice programme.

Name, position and contact details of researcher:
Thinus Mathee (JM), Senior Lecturer Photography and Multimedia, Vaal University of Technology, 082 558 9187

Name, position and contact details of supervisor (if the researcher is a student):
Prof Richard Berger, Media School, Bournemouth University, UK, +44 12202 965515
Dr Christa Van Raalte, Media School, Bournemouth University, UK +44 7712 302000

	Please Initial Here
I confirm that I have read and understood the participant information sheet for the above research project and have had the opportunity to ask questions.	
I understand that my participation is voluntary and that I am free to withdraw up to the point of transcription of the in-depth interviews without giving reason and without there being any negative consequences. In addition, should I not wish to answer any particular question(s), complete a test or give a sample, I am free to decline.	
I give permission for members of the research team to use my identifiable information for the purposes of this research project.	
I agree to take part in the above research project.	

_____   _____   _____
Name of Participant   Date   Signature

_____   _____   _____
Name of Researcher   Date   Signature