

The Practitioner's Tapestry: Revealing the epistemological diversity to project management knowledge

Markus Krusi

Stephen Jonathan Whitty

University of Southern Queensland

Abstract

This case study investigates how the life experiences of a project manager have influenced their professional practice. The research methodology takes a phenomenological approach to an art therapy technique. We call it the Practitioner's Tapestry, which comprises narrative with sketching sessions. The methodology revealed that close relationships with inspirational people in their formative years have influenced their practice, specifically informing mental models that subsequently structure their behavior towards others and their approach towards 'doing things'. The results align with an important criticism about the epistemological and ontological assumptions of the various project management bodies of knowledge, as mental models and the tacit knowledge they develop do rightly constitute project management knowledge for dealing with the actuality of project work.

Keywords: theory of research into project management, epistemology, lived-experience, mental models, tacit knowledge, art therapy

1. Introduction

Managing contemporary project work is not only about dealing with differing technical matters; it involves coping with a large number of human interactions (Fricke & Faust, 2006). Placing too much emphasis on project management systems and procedures leads to project managers attempting to seize control of events and challenging reality rather than adapting to the reality of the changing environment (Berggren & Söderlund, 2008; Fulmer, 2000; Hodgson, 2004). To be able to adapt, the project manager requires implicit and tacit knowledge that comes from personal and professional experience (Choudrie & Selamat, 2006; Fricke & Faust, 2006; Selamat & Choudrie, 2007). These so-called meta-abilities promotes creativity and innovative behavior, enabling the individual to adapt to the continuously changing environment (Lengnick-Hall & Beck, 2005; Simpson, 1992).

The 'lived experience' research of project work calls for researchers to advance the discipline by means of alternative research methods that explore and examine the actuality of the experience (Cicmil, 2006; Cicmil, Williams, Thomas, & Hodgson, 2006; Fernandes, Ward, & Araújo, 2015; Floricel, Bonneau, Aubry, & Sergi, 2014; Muller, Sankaran, & Drouin, 2013; Smith, 2014; Svejvig & Andersen, 2015; M Winter, Smith, Morris, & Cicmil, 2006; Mark Winter & Szczepanek, 2009). This body of research makes the case that the meta-abilities required to deal with the actuality of project work is gained from life's experiences (B van der Hoorn & Whitty, 2015). If this proposition is correct, then it begs the question; *what is the nature of these life experiences that best prepares a person to deal with the challenges of managing project work?* Consequentially, this creates a further methodological challenge of finding and deploying a data collection and analysis method for elucidating these life experiences and their interdependences that prime a project manager's senses and governs their behavior in the various modern-day contexts of project work.

The objective of this paper is to address this matter and demonstrate that repurposing of an arts-based methodology, we call the Practitioner's Tapestry, can reveal the nature of these life experiences and aspects of thrownness (mental models), which the project manager perceives vital to deal with the actuality of project work. The paper, therefore, makes two contributions to the 'lived-experience' project management literature. Firstly, it demonstrates a version of a research methodology called 'Practitioner's Tapestry'. This methodology is a repurposing of

an art-based narrative therapy methodology used to stimulate the telling of a story about events and experiences that happened in the past or envisaged to occur in the future. The Practitioner's Tapestry methodology contributes by disclosing specific aspects of a practitioner's implicit and tacit knowledge, namely the mental models that subsequently structure their practice of managing project work. The second contribution is an account and description of the mental models themselves, namely in this case the "sailing boat" and the "toolbox". Previously the literature has discussed mental models, but it has not been specific about them to such an extent that other practitioners could adopt and use them. The Practitioner's Tapestry was instrumental in revealing these mental models through metaphors, as its process of multiple sessions of narrative storytelling with supplementary sketching allowed for the 'signs' to these mental models to reveal themselves.

We position this research amongst the ambition to explore the "actuality" of project managing by widening the scope of research methods to consider the unseen and tacit aspects of the project manager's performance (Cicmil et al., 2006). Most particularly this includes the 'lived-experience' studies that have used arts-based methods to access previously hidden emotional-based information about managing project work (Bronte van der Hoorn, 2015; Whitty, 2010)

Whilst this study involved one participant, we feel the findings are of value to the literature and worth reporting. The Practitioner Tapestry methodology proved in this instance to be effective at disclosing the previously unseen tacit ways the practitioner maps their experiences of project work to the various mental models they have adopted. From the participant's point of view, the mental models have enabled them to deal with many diverse aspects of project work over many years. Furthermore, the methodology was also fruitful at reasoning an account of how and when, and perhaps even, why the practitioner acquired these particular mental models. This information may prove to be useful in the future if we are to develop ways of sharing mental models amongst practitioners.

We see that the results of this study contribute to research and practice by providing evidence in the case against the positivist ontological and epistemological assumptions about what constitutes project management knowledge. Project management research is continuously challenged by the expectations of practice to deliver knowledge that goes beyond rationalism

and helps deal with ambiguity, uncertainty, and complexity in the socio-politico-economic world of projects (Bredillet, Tywoniak, & Dwivedula, 2015).

We see that the finding also contributes to a 'theory *about* practice' (see (Bredillet, 2016)) in that it helps us understand practice from a perspective that considers a practitioner's life and cultural experiences. It also contributes to a 'theory *for* practice' (see (Bredillet, 2016)) in that it reveals concepts (in this case mental models) that have practical applications for the practitioner. These mental models can be considered an example of epistemic-praxeological cognition, in that they are involved (sometimes consciously and sometimes through the tacit knowledge they create) in the observation-action of the participant in their practice. As Bredillet (2010) points out, epistemic-praxeological cognition involves both partial subjectivity and partial objectivity. In our study, that comprises the life and cultural experiences of the participant, with the constituted world of the project as agreed upon by the project management profession. Perhaps put more straightforwardly, this study demonstrates a methodological capability to reveal the significant role of mental models, and the tacit knowledge they create, in the actuality of managing project work. The project management bodies of knowledge do not currently acknowledge this role or its significance.

Having already set out the background and premise for the study, we structure the body of the paper by first outlining the contiguous literature on art-based methodologies as they pertain to the study, and mental models as they concern the findings. We then defend and explain our use of the Practitioner's Tapestry methodology, including the stages of data collection and analysis. The structure of the results section is based on the stages of data collection, and show by means of the participant's sketches and accompanying commentary, the developmental stages of their Tapestry. The discussion includes a reflection on how the methodology has assisted in answering the research question, as well as commentary on the efficacy of the methodology and the implications of our findings. We conclude by making the claim that the project management academic and practitioner literature misses the specificity around soft and tacit knowledge to enable practice and that this methodology has proved to address this.

2. Contiguous literature

Art Therapy is a data collection method available for studying a person's source of behavior, and it is mainly used to address the question "what life event causes a disorder or aberrant behavior?" (Appleton, 2001; Baker, 2006). Art Therapy covers a broad spectrum of therapies including all kinds of activities referred to as 'art'. In the dichotomy of art and science, mind and body, art therapy focuses on the mind as opposed to science, which focuses predominantly on the body (Kirkeben, 2001; Kushner, 1998; Ratcliffe, 1977). Art therapy has as many forms of expression as there are creative art categories (Dissanayake, 1995; Thompson & Blair, 1998) and any of the art-typical activities may assist people with improving mental, emotional and consequently their physical wellbeing (ATA, 2015; Loewenthal, 2013; Thompson & Blair, 1998). Therapies commence with a narrative therapy session, and in some instances it is the only method used (Baker, 2006; Briks, 2007; Ehresman, 2014; Lusebrink, 2004; Naff, 2014). Narration can be used in isolation, which is the purely spoken and written form, or in combination with sounds, gestures, drawings and other art-typical means (Geertz, 1973). Other forms of art can be used as 'props' assisting with creating a narrative (Barry, 1997; Naff, 2014) or become part of the narrative (Chilton, Gerber, Council, Dreyer, & Strecker, 2015; Skeffington & Browne, 2014).

Important to this study, we know that visual artwork triggers conversations and thus assists with the elicitation of previously hidden emotions that drive behavior in the context of project work (Loewenthal, 2013; Nunez, 2009; Olivier, 2013; Whitty, 2010). Art is an expressive activity that can unlock and elicit emotions buried deep within a human being, expressing the inexpressible, providing insight to areas of the mind that are otherwise inaccessible (Brearley, 2008; Freud 2010 in Ratcliffe, 1977). The art of the narrative is of particular interest because humans have a natural tendency to talk and tell stories; it is the most common form of symbolized communication used by humans (Carlson, 1997; Greenspan & Shanker, 2006; Scott-Phillips, Dickins, & West, 2011).

An issue with the narrative lies with the fact that some tacit and implicit knowledge may not be accessible (Nonaka & Von Krogh, 2009). Interviews and surveys are methods that are used to commence the process of the narrative process but on their own will not be able to elicit the rich data that is sought to create a meaningful tapestry of the patient's lived experiences (G

Klein, Calderwood, & Macgregor, 1989). A narrative without a high level of socialization between participants (including the researcher) will not provide a result with a sufficient amount of rich data being unlocked (Hurley & Wachowicz, 2009; Kikoski & Kikoski, 2004).

The application of art therapy has been expanded and repurposed as an inquisitorial tool to capture the lived experience of a project manager to find out what influences their behavior (Barry, 1997; Bronte van der Hoorn, 2015; White, 2001). The results of the narrative sessions are therefore representations of the lived experience a person's life in loose form. Individually these representations (e.g. sketches and drawings) might not have much meaning. However, interpreted together considering context and interrelatedness, or as Heidegger posits a 'thrownness', meaning can be conveyed (Heidegger, Macquarrie, & Robinson, 2000). A Tapestry is a representational form used to present these events and experiences that preserves and conveys the thrownness. A Tapestry is an allegory of a pictorial history displaying how something has evolved or even metamorphosed into what it is now (Hyatt, 2016). Tapestries have been used in all parts of the world throughout history and can convey the meaning of a story to an audience that is not limited by literacy skills or other expressive barriers. The value of the Tapestry is contained in presenting the bigger picture that represents the thrownness of life's experiences in the context of the entire life and of its relevance to the contemporary activity of being a project manager.

2.1. On art-based techniques already in project management

The narrative is applied in ethnographic and action studies and complemented by art-based techniques with the aim to capture the 'lived experience' of project managers. Studies have employed drawings (Whitty, 2010), musical activities (Bronte van der Hoorn, 2015) and photographs (B van der Hoorn & Whitty, 2019) to access hidden and emotional based information (Bronte van der Hoorn, 2015; Whitty, 2010). Other work in the field of management involved the use of art-based techniques to effect change in the behavior of managers or in some cases the entire organization's collective behavior (Brearley, 2008; Kerr & Lloyd, 2008; Lloyd, 2007). Through this process, the lived experience in the world of the Project Manager and the Researcher to some extent become one. Metaphorically speaking, the Project Manager is inviting the Researcher into his house, enabling both to 'look around the house' where the life's events are stored, thus allowing them to see not only the Project

Manager's past but it will elucidate what causes the emotions experienced in the present, and yield a projection of the future as envisaged by the Project Manager (Carr, 1998; Etchison & Kleist, 2000; Kikoski & Kikoski, 2004; Ikujiro Nonaka & Konno, 2005).

2.2. On Tapestries

The Tapestry of Life is a metaphor for a pictorial history of 'the how something' has evolved to the point it is at the present (Hyatt, 2016). For instance, the history of the human race when presented in the shape of a tapestry is conveying meaning in the form of a powerful message and explanation in an easy to understand way (Douglas, 2003; Larson, 2015).

The use of tapestries is not new. Historic events are documented using panoramic paintings. The earliest known types of tapestries being murals are found in caves that predate the time of written language (Lewis, 1999; Lossing, 1860). Tapestries and the pictorial representation contained therein, do not aim to display the full story or be a full and verbatim representation of a historic event. The events depicted on the tapestry are intended to trigger a silent dialog between the picture and the viewer (O. Schneider, Göbel, & Zu Ermgassen, 2004).

Heidegger posits that human life is not shaped or defined in its isolated or individual self but in terms of what has come before and what will come thereafter; a phenomenon termed by Heidegger (Heidegger et al., 2000) as Thrownness (*Geworfenheit*). A tapestry contains visual representations of individual events collated into one big picture creating a multi-layered narrative that illustrates how the past is fused with the present (Lewis, 1999). As such, the principle of thrownness applies to the interconnectedness of the pictorial representations contained in the tapestry as well as the interconnectedness of the story, the author and the viewer (Ahmad, 2009; Olivier, 2013; Schalow, 1998, 2015).

In addition to being a pictorial history depicting past events, the tapestry also contains pictures reflecting a person's vision of the future. Husserl called this 'Protentions': expectations about the immediate future, as opposed to 'Retentions' which are the memories of the past (Boenn, 2008). The combination of these conjoined components (past and immediate future) of consciousness together creates the 'now' in a form described as 'Gestalt' (Reybrouck, 1997; Von Bertalanffy, 1949). By elaborated drawings such as a tapestry, a persona can reveal through their representations and interconnection, how they perceive and represent the present

in terms of the past and immediate future. Drawings such as these are a powerful way, perhaps the only way, to disclose the mental representation (mental models) a person uses to construct and interpret the world around them for the purpose of action (Reiss et al., 2002; Reiss & Tunnicliffe, 2001).

2.3. On mental models

Mental models are schemata based on concepts, objects, attributes, actions, and events that imprint in the subconscious memory. The mental models operate autonomously and outside one's control (W. Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977). Mental models are always imperfect and incomplete, a simplified repertoire of patterns representing the information, both real and illusionary, deemed to be relevant (de Jongste, 2016; Gore & Conway, 2016; Lipshitz, Klein, Orasanu, & Salas, 2001; Militello, Sushereba, Branlat, Bean, & Finomore, 2015; Nemeth & Klein, 2010; Scott, 2015; Wendel & Hodgson, 2003; World-Bank, 2015). A mental model is shaped by innate and biological stimuli and patterns acquired through experiences in the social and physical environment (de Jongste, 2016; World-Bank, 2015). A mental model is never finished or complete, and is constantly subject to adaption and modulation when information based on new circumstances is added (Johnson-Laird, 2004; Scott, 2015; World-Bank, 2015). Importantly for this study, mental models are the source of the tacit knowledge and skills that shape how people react and make intuitive decisions in emergent situations where a rapid response is required (Amoroso, Greenthal, Turner, & Nixon Hargrave Devans & Doyle., 1993; Gore & Conway, 2016; Gary Klein, 1992, 2008; G Klein et al., 1989; World-Bank, 2015).

To find out what forms of mental model, traditional systematic evaluation techniques have proven not to be useful (Gary Klein, 2008; Lipshitz et al., 2001). Free-flowing in-depth structured and unstructured interviews are better able to assist with finding the source of what motivates people's decisions when confronted with real-world experiences that require intuitive and reflexive responses (Lipshitz et al., 2001; Nemeth & Klein, 2010; Wendel & Hodgson, 2003). The narrative enables retrospective and prospective analysis of a participant's life and externalizes core data showing what forms the mental model of a person (Johnson-Laird, 2004; Kim & Andersen, 2012; Lipshitz et al., 2001). Enhanced with representations that 'express more than words' such as sketches that may lack artistic quality but retain full authenticity, the

narrative reveals 'the real-world experiences' that formed the mental model (Kim & Andersen, 2012; Militello et al., 2015). This research approach has been employed in a wide range of disciplines including medicine, the military, power plant operators, pilots, engineers, firefighters and chess players (Gary Klein, 2008).

Project managers are said to use soft and hard skills when managing projects that are subject to a high range of fluidity, uncertainty and requires adaptability, and it is said they rely on mental models to find innovative solutions for novel challenges (Cicmil et al., 2006; Sterman, 1992; Wang & Liu, 2009). However, this body of literature is not specific about the nature or form of these mental models and how they influence an individual's practice. The idiosyncratic mental model guides judgments and decisions that are deemed by the project manager to the best workable option, albeit not necessarily leading to the most rational or efficient solution (Nemeth & Klein, 2010). In project management this includes hypothesizing about other people's and teams' mental models and how it may drive their behavior (de Jongste, 2016; Scott, 2015). However, again the literature does not say anything about the subject of these mental models.

In summary, we have a sense that practitioners do draw on life experiences to enable them to deal with the actuality of project work, but we do not know specifically how these life experiences have impacted them, or how they have formed their mental models and influenced their practice of managing project work. We suggest that by repurposing the Tapestry methodology into the form of a Practitioner's Tapestry methodology, we can reveal the source (life experiences) and underpinning structure (mental models) of previously unseen tacit knowledge a practitioner draws on in their daily dealing with project work.

Resulting from the background and literature our research question is:

'Can the Practitioner's Tapestry methodology reveal the life experiences and aspects of thrownness (mental models) that the project manager perceives vital to deal with the actuality of project work?'

3. Research Methodology

This case study is centered on first discovering what the fundamental attributes and the resulting behavior traits a regarded expert project manager 'perceives' are vital contributors to them being able to manage project work successfully. Secondly, when, where, and how in their lived life have these behavior traits been acquired, and contributed to them becoming an expert in the field. This requires access to unique personal information to get to the origins of the project manager's behavior. Traditionally, we use qualitative study methods to achieve access to deep-seated personal information. To elicit personal information containing deep meaning the investigative process commences with an unstructured narrative. However, it requires more than only the spoken word. Rich data requires art-based activities to yield richness of expression (G Klein et al., 1989).

The study of a single case or the detailed single example, better known as 'the case-study' still appears to require a relentless and substantial justification and defense. This is mainly because conventional wisdom about the case-study amongst researchers is either misleading or wrongfully informed. Many publications, particularly in project management, defend the case-study by drawing on Flyvbjerg (2006) and his established conceptualization of five widespread misunderstandings about case-study research, and how it is considered 'only a case' that cannot be generalized and therefore not contribute to scientific development or impact on theory and test hypotheses. Moreover, the case-study is often dismissed by saying it merely confirms the preconceived ideas of the researcher and the findings, which are often narrative are difficult to summaries and draw conclusions from.

In defense of the value of our single case contribution and what we believe is the necessary detail of our overall methodological approach, we trust it would be useful to address the most poignant corrections Flyvbjerg (2006) makes to the widespread misunderstandings about case-study research. We consider these corrections to be, that expert knowledge is context-dependent, and that consequentially and necessarily our discipline literature should contain a diversity of case-study research that is rich in data about the case and how the case was studied.

For researchers and practitioners to understand the know-how of the project management expert, our study contains the nuanced details of our expert's view of reality, and this comes from successfully eliciting both their experiences of becoming the practitioner and being the

practitioner. Furthermore, for our fellow researcher community to expand and improve researching the project management expert, our study contains information about the researchers' experiences, as this is central to any researcher's skills development. We hope that this case study research using the Practitioner's Tapestry will be the first of many case examples to come, and eventually prove to be a strong base from which to build and test the theory on the actuality of project delivery.

3.1. The Practitioner's Tapestry methodology

The research process commenced with an ethics application to the University of Southern Queensland. The granted application included an overview of the aims, anticipated benefits of the research and the possible risks associated with being involved in the research, the proposed 'practitioner's tapestry' data collection method, and the analysis procedure. The ethics process also ensured both the researcher and the participant give consideration to privacy concerns (Rapport, Doel, & Elwyn, 2007; Slutskaya, Simpson, & Hughes, 2012; Warren, 2002)

3.1.1. Data collection

The participant was a middle-aged male project manager with almost twenty years' experience managing large-scale projects. He is an active and prominent member of a project management chapter who is well regarded by the membership and considered a mentor by many. Using the methodology the practitioner can evaluate whether the lived experiences of their life have influenced the lived experiences encountered when managing project work, and if so what form the life experiences they draw on in their day to day coping as a practitioner.

The methodology comprises three stages, namely, an initial meeting, three narrative/sketching session, and the assembly of the Practitioner's Tapestry. There were pauses between stages and sessions to provide time for the participant and the researcher to reflect on the information exposed during the previous stages and sessions. The initial meeting prepared the ground for the following three narratives with sketching sessions. The first narrative with sketching session focused on what the participant thought the important behavior traits were that make them successful at managing project work, and where and how they think they acquired these traits. The second and third narrative with sketching sessions focused on filling in the gaps and

areas not previously addressed. The final part of the study was assembling the collected information and presenting it in the form of a Practitioner's Tapestry.

3.1.2. Data analysis

The analysis involves arranging the information gathered during the narration and sketching activities in a chronological sequence, connecting them to express a meta-view, thus creating meaning through the interconnectedness. This interconnecting process of the Practitioner's Tapestry further reveals the relationship of the elucidated information with the thoughts provided by the participant of what he 'perceives' is important when confronted with the actuality of project work.

4. Results

Stage one: The initial meeting. In the meeting, the participant reflected on his experiences and identified three major areas, which he perceived as being vital when managing projects:

- "Team recruiting and building"
- "Plot and re-plot the course"
- "Where the buck stops"

These points are important as not only individual and stand-alone skills but also that balance, overlap, and proximity exists. This view relates to Goleman's (2006) notion of Emotional Intelligence.

By referring to the Project Management Institute's Talent Triangle (PMI, 2017, p. 57), the participant mentioned that when sourcing project managers, organizations are focusing too heavily on the theoretical technical criteria of project management rather than focusing on the leading strategic and business management skills.

Stage Two: This started the narrative process and the creation of the sketches. The initial question posed was, 'what do you think made you choose the career of project manager?' The participant likened his career path to a sailing trip that began with his university training. However, it was not "plain sailing in a straight line" because of external influences, referred to as "winds", which affected his path and direction (Figure 1). These "winds" not only affected

that “straight line” but also caused modifications to the vision of the “career destination”. Interestingly, the participants labeled the external influences (winds) as “opportunities” rather than something with a negative connotation.

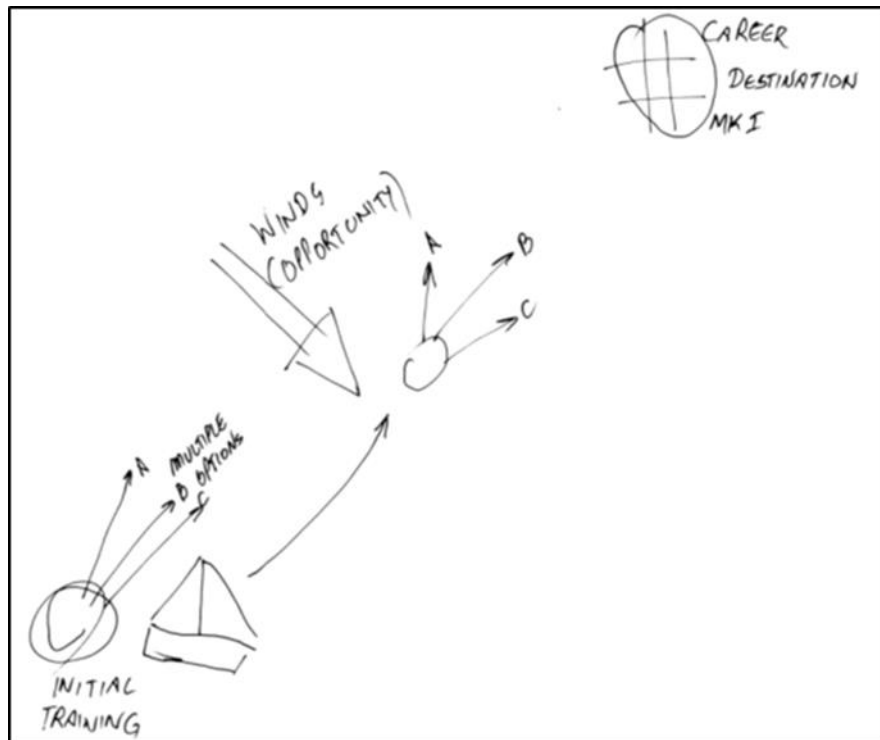


Figure 1: Concept of career path drawn by the study participant

This led to the question of, ‘what caused you to have a vision of a career destination at all?’ The response centered on the soft skills passed on by the members of the immediate family in the early stages of childhood (Figure 2, Section B). The activities shown are goal-centered, organized and structured.

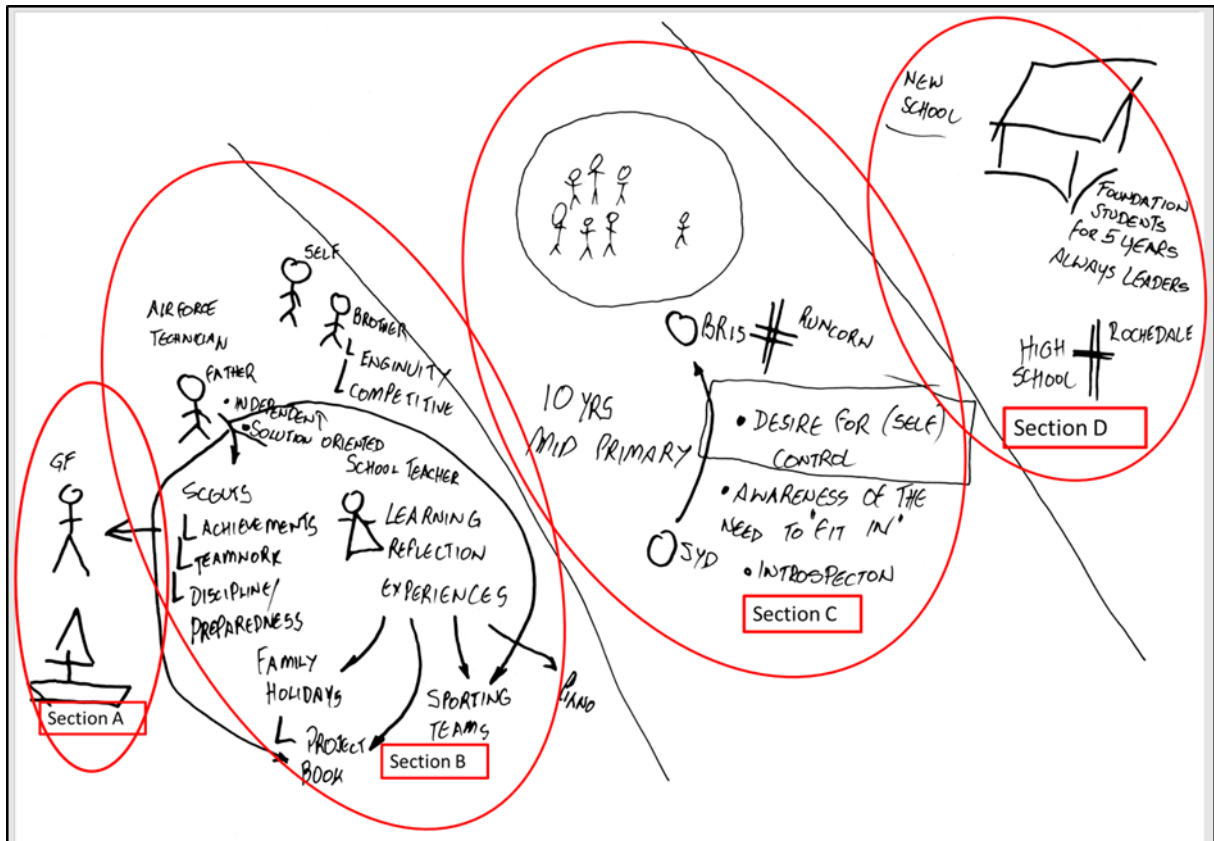


Figure 2: Formative years drawn by the Study Participant

After the early childhood years, the participant drew a line at the right of the visual representation (Figure 2, Section B & C). That line indicates the start of a new phase of life bringing new challenges, namely the interactions with the world outside of the immediate family (Figure 2 Section C). It signifies a new world, and for the first time in life, a rather hostile one. Regardless, the participant always talked about “challenges” and “opportunities” with the notable absence of negative expressions. The large “out-group” versus the small single person represents the challenges posed by the external environment. Contrasting the early years, the new environment matches the kinship paradigm of “them versus us”, or worse as in this case “them versus me”. The only option was an adaption or to “fit in” to a less than perfect world. This phase had posed several challenges but considered closed by the participant as clearly delineated by a dividing line (Figure 2, Section C & D).

In the second narrative session, the term “leader” and “leadership” appeared (Figure 2 Section D). Starting from the small family circle to the larger more complex school group, the participant talked about soft skills and how were necessary to live in the social environment. The participant termed the years up to end of high school as the “formative years”, indicating that these phases have been of vital importance (Figure 2 Sections A to D). The formative year's grounded important activities from the early years and were supplemented by subsequent experiences during the middle and high school years.

In the third narrative session, some questions emerged relating to major influences from the human or natural environment, and whether any poignant experience during the formative years occurred that had a profound effect. No major event was mentioned, other than the experiences of days of sailing in the early years of childhood with the grandfather who had been a keen sailor (Figure 2 Section A). This explained the participant using the metaphor or mental representation (mental model) of the sailing boat (Figure 1) in describing his career.

As the father of the participant, the grandfather also was a mechanically minded person. He described both men as “highly capable”. The influence of these men appears as a major factor in shaping the participant’s behavior, starting from the grandfather navigating the sailing boat and being a general worker in the mines “fixing things”. Both notions were a reoccurring theme during the narrative sessions. The father with his “big toolbox” was able to “fix anything” albeit in a different industry. The participant frequently referred to the concept of “toolbox”. No matter what the challenge was, equipped with their toolbox these men knew how to “deal” with anything. Although the toolbox was of great importance, it was not like a sacred artifact in any religious sense. The participant talked about his own metaphorical toolbox he uses with project work, and how his contained templates, processes, flow-charts, social techniques, etc., “collected over the years” just like his father did with his mechanical tools.

Another questioning avenue explored concerned life-changing events in professional life. Again, he mentioned the winds that affected the course of life, such as the moment when a superior informed him that technical skills alone are not sufficient to succeed if not

accompanied by good people skills. This moment appears to be the catalyst for the participant to become aware of the importance of social skills (Figure 3 Section E).

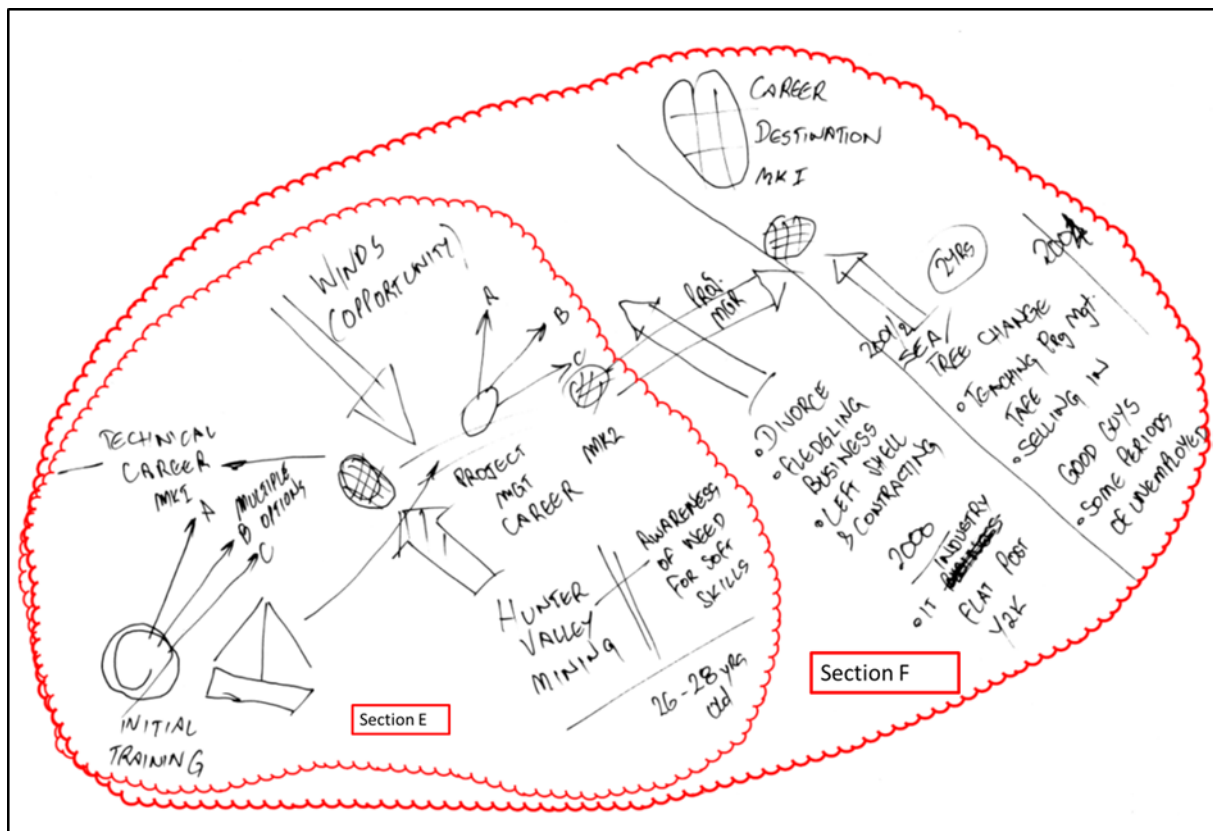


Figure 3: Middle section of Practitioner Tapestry drawn by the Study Participant

The participant compared the conversation with their superior with the experience of moving to a new school (Figure 2 Section C) and the need to “fit in” leading to the appreciation of the value of social skills and the consequential modification of the career vision to MK II. This entailed moving from being a purely technically focused person towards project management to a career that requires both technical as well as social skills. In the following years, several events acted like winds jolting their metaphorical sailing boat into unforeseen new directions (Figure 1 & Figure 3 Sections E & F). The pattern for the early career (Figure 3 Section E) is very similar to the pattern for the latter part (Figure 4 Section G).

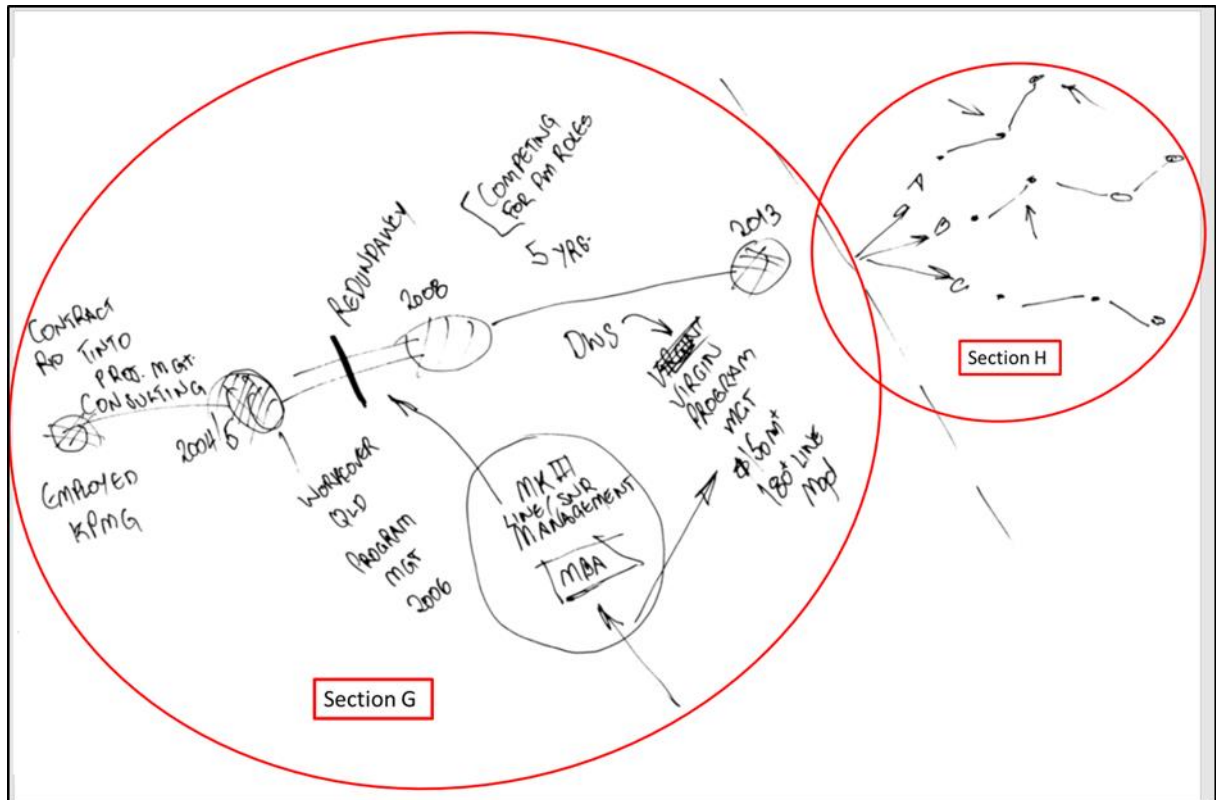


Figure 4: Later Career, drawn by Study Participant

Similar to the narrative during stage one, the participant is expecting that the future will be comparable to the past, specifically that there will be “winds knocking the charted path” of the boat. He foresees and allows for, multiple options (Figure 4 Section H) that will allow him to deal with any eventualities.

The participant believes that whatever the events, “winds”, “opportunities”, “challenges” or other influences, it will be the skills acquired to date, i.e. the “toolbox”, that will be sufficient to “deal” with all and any eventualities.

The combined Practitioner’s Tapestry (Figure 5) shows an aspect of the lived experiences in the life of the participant, starting from the grandfather up to and including the vision of the future at the far right. On the left are the formative years, shaped by influences from parents and peers proceeding via the adolescent years to the professional life. The vision of the future indicates that it will be a variant of the past.

5. Discussion

This case study has produced a range of narratives, sketches, consequential reflections on these, and finally the Practitioner's Tapestry, all with the intention of expressing what they deem to be of importance in relation to their lived experience of managing project work and how their life experiences influence this.

From the outset, the participant felt that their 'soft-skill' were most influential to their success as project managers. These give them the crucial ability to deal with the human factors and ambiguity of project work. They also felt, as was the premise of this study, that they acquired these soft-skills through various life experiences and not from any explicit project management training. However, how they acquired these soft-skills by lived experiences of the participant's life was not clear at the outset. To try to understand the influential relationship between life experiences and expert practice, this study set out to demonstrate a methodology called the Practitioner's Tapestry. Given the application of the methodology, Figure 6 illustrates the Practitioner's Tapestry that the practitioner drew to try and explain these influences.

Broadly speaking (referring to Figure 6, right to left, stepping backward in time), what the participant refers to as soft-skills are the 'behaviors' that are considered to be useful when dealing with human factors and ambiguity. These behaviors are implicit and tacit in nature in that they are performable in a specific context, rather than explainable in general terms. The mental models the practitioner uses to interpret the world around them provides the structure that underpins this implicit and tacit knowledge. These mental models are a manifestation of thrownness, and they are cultivated in the environment of life experiences. Of particular interest, and revealed by this methodology, is that the specifics of these mental models is hard to perceive in the demonstrated tacit knowledge. However, tacit knowledge is developed while the world is interpreted through these mental models. We can, therefore, consider these mental models to be a 'falsework' (a term described shortly) for structuring the construction of tacit knowledge. For the practitioner, the mental models are largely out of their awareness in their every-day-ness and hidden from the discussion, yet the tacit knowledge would not be the way it is without the mental models.

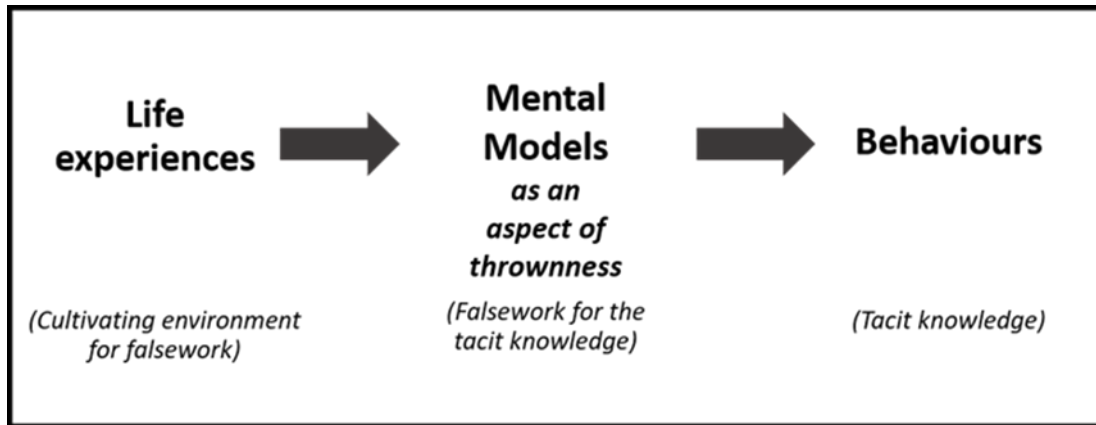


Figure 6: *The Practitioner's Tapestry - revealing the source of tacit knowledge*

5.1. Efficacy of the Practitioner's Tapestry

The Practitioner's Tapestry was created from the sketches from the narrative sessions. The participant ordered the depictions of events, experiences, and people in a manner reflecting the importance and relevant inter-relationships, shown by arrows and spatial location on the Practitioner's Tapestry (Figure 1 to Figure 5). The visual representation is similar to a coaches' board, where the visual representation itself does not tell the story, but rather the story cannot be told without the visual representation (Bell, 2002; Chilton et al., 2015; Skeffington & Browne, 2014). Furthermore, during the narrative sessions, the sketches created by the participant and referred to by the researcher assisted with memorizing, and kept visual the events talked about previously (Mayer, 2009; Mayer & Geher, 1996). This made the evolving Practitioner's Tapestry a very valuable tool in keeping the contextual focus alive.

This leads to an important reflection regarding the research question, has the narrative been able to externalise tacit and implicit, mainly previously unseen emotionally based information (Mitchell, Egudo, SCIENCE, & DIV., 2003) or does it appear that some information and knowledge remains inaccessible (Nonaka & Von Krogh, 2009)? The narrative and sketching process and practitioner tapestry creation have provided a way of holding the story together as a whole and surviving the weathering of time between reflexive sessions, and containing implicit interconnections and causations that have previously been hidden (Carolan, 2001). For example, the formative years (Figure 2) shows how it created the basis for the professional life of the participant. The formative years are also heavily weighted in favour of the early childhood years where the immediate family, namely grandfather, father, mother, and brother

(Figure 2 Section B) have been the source of the experiences that have equipped the participant with the basic mental 'toolbox' required to deal with the challenges in the succeeding phases. This does not align with the theory of Rich-Harris (2011) who believes that a person's behavior is predominantly shaped by the peer group. The first major experiences with a larger peer group were a harsh lesson on how to deal with adversity and hostility. The ability to deal with these adverse circumstances was only possible by drawing on the social skills and knowledge, held in the 'toolbox', obtained during the early childhood years amongst family.

5.2. Mental models as structures for constructing behavior

The senses are a source of how an individual perceives the world and what effect future events will have on the individual, not only physically, but emotionally (Perler & Wild, 2005; Wild, 2006a, 2006b). The priming of the senses does not start with birth, as nature, as well as nurture (commencing long before birth), affects how the senses will shape how humans perceive the world (Sapolsky, 2005, 2011). This study looked at the participant's priming of the senses throughout life, starting from early childhood where the influence of parents on the formation of a child's emotional intelligence occurs (Greenspan & Shanker, 2006; Harris, 2011).

The narrative and sketching sessions revealed that the influence of the immediate family member's actions *shaped how the participant reacts to events* that occurred later in life. The priming of the senses that occurred during the early life shaped the '*Grundform*' (baseline), like somatic markers, to which all later events have been referenced (Damasio, 1999; Ehrhardt, 2010; Storch, 2003; Von Bertalanffy, 1949).

5.3. Discerning mental models from thrownness

It was the phases *between* experiences (i.e. Figure 4 Section G) that have been "formative" (using the participant's term). There is a thrownness discernible in the Practitioner's Tapestry. Single events and phases do not in themselves contain much meaning but viewed as an interconnected entirety they create a meaning (Olivier, 2013; Schalow, 1998, 2015). Whilst events and experiences are discernible on the Practitioner's Tapestry, it is the phases in life and influential people encountered 'during' these phases that have primed the participant's reactive behavior. The influence of the people derives not from what these people explicitly imparted to the participant but rather the implicit approach to life expressed through these peoples' activities. For example, the grandfather's thinking when sailing that 'changes are simply new

opportunities' and the father's rationale that 'with my toolbox everything can be fixed'. These approaches have embedded themselves in the participant's subconsciousness as 'signs' (in the Heideggerian sense) to the mental models they use to interpret the world.

Gould and Lewontin (1979) termed the time in-between events as "spandrel", a structurally unimportant part. That analogy would deny the importance of the time occurring between two events. A better analogy is with the 'falsework' of building a bridge, where the uninitiated wonders what is happening, until the moment the bridge opens (the 'event'). Like constructional falsework, the time in-between events is where the important building work or change is occurring. It is a point where the internal forces and the external forces develop a relationship to produce what is perceived to be a new event.

In the thrownness of the Practitioner's Tapestry, any event would not occur in the manner it does without the time in-between assisting with creating the groundwork for how that next event is interpreted or regarded (Olivier, 2013). We define events as moments in a series of passages. The behavior of a person today is shaped through the phases of that person's life, which are no longer visible. Only the product of the 'falsework', or in the case of a person the 'formative years', is remaining, and manifests through the person's behavior. The Practitioner's Tapestry, therefore, helps present the 'structures that construct the behavior' by elucidating forgotten phases and unconscious constructs that contributed to the final product. The thrownness of the Practitioner's Tapestry does not only include the past but makes a link to the participant's perception of the future. Moreover, that view of the future is structured by experiences in the past. In their early life, there was a future in version 1 (Figure 1), which was modified by new life experiences into version 2 (Figure 4 Section G).

The purpose of creating the Practitioner's Tapestry was to see whether it would reveal what experiences in the life of the participant created the foundation for the behavior as a project manager today (Table 1). A close examination of the Practitioner's Tapestry in comparison with the statement provided by the participant at the initial meeting show that there is a link, in the practitioner's mind, between the behavioral skills they deem to be a vital contributor to a project manager's success and the passages in the life of the participant.

Table 1: Mental Models underpinning important skills perceived as vital when managing projects

Participant's List	Associated Core Skills	Mental Model providing the falsework
Team recruiting and building	Build relationships, provide leadership, and deal with different people	The Toolbox: many useful soft-skill behaviors and techniques consciously collected over many years
Plot and re-plot the course	Manage plans, risk, multiple options	The sailing boat: change is inevitable and predictably unpredictable, and re-assessing and navigating is essential
Where the buck stops	Take responsibility, set appropriate goals/quality standards	The sailing boat: the duty of charting courses for self and others

The Practitioner's Tapestry yields a summarising picture of the participant's important life passages and their 'signs', in the form of mental models, which remain embedded in their perceptive thinking.

5.4. Implications

We suggest that the implications of this study are far-reaching, as the epistemological and ontological assumptions of the mainstream project management discipline are possibly misplaced. This study suggests that mental models might have more influence on the outcome of project work than traditional project management processes and tools. Reviews of both Bredillet (2010) and Morris (2010) find that positivism is the dominant position of much of the project academic literature, and even more so practitioner reference documentation. Therefore, mainstream reasoning of the practitioner community can be characterized as – knowing what to do, to successfully manage projects, can be found 'out there in the world' in the form of processes and tools. However, this study presents compelling evidence that this well-regarded project manager 'knows what to do' in a project managing moment by placing great reliance on a small repertoire of simplified 'mental models' that were formed and honed in their mind through childhood experiences, and habitually used. As previously discussed, these mental models provide a structure for tacit knowledge to develop around; in that they provide a hidden framework (a falsework) that shapes behaviors, which over time prove to be useful tacit knowledge. From an epistemological and ontological point of view, mental models and their

generative tacit knowledge are better aligned with phenomenology, which describes knowledge as contextual, embodied (self and other are merged), and embedded in every-day life (Tasker, Loftus, & Higgs, 2014; Valle, King, & Halling, 1989). The practitioner in this study is an example of someone who is adapting his every-day-ness in the reality of project work.

6. Conclusions

The project management academic and practitioner literature frequently discuss that what is required to deal with project work is more than the hard or technical skill. The 'what's more' is considered necessary to deal with the human factors and the ambiguity of project work, and this is often couched in terms of soft-skills and tacit knowledge. However, the literature lacks the necessary specificity and detail on the soft-skills and tacit knowledge that would enable others to acquire and practice them.

This study set out to reveal specific behavioral traits and the tacit 'things' that a well-regarded project manager deems important when dealing with the actuality of project work. To do this we adapted a methodology from art therapy, namely a narrative technique supported by visual representations, and called it the Practitioner's Tapestry methodology. This methodology allowed the practitioner to externalising information about his life experiences, and how these experiences shape how he mentally represents the world through mental models. These mental models in turn influence how he deals with his every-day-ness, and how he deals with the actuality of project work.

The Practitioner's Tapestry methodology revealed that it is the behavioral traits of inspirational people close to the participant, in his early life, that had provided him with a foundation to structure their own behaviors. The narrative with sketching sessions helped the practitioner 'make sense' of their own behaviors and exposed the metaphors and underpinning mental models they use to structure their own behavior that they believe is necessary to successfully manage project work.

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Authors



Markus Krusi is a PhD candidate at the University of Southern Queensland, Australia. His research interest is in the area of the tacit and implicit knowledge used by project managers when they navigate through the complexities and uncertainties inherent in project work. His primary focus is on identify the mental models that create the basis for this knowledge. He is using art-based methodologies to elucidate how these mental models are formed in project managers. He is a Construction Manager with over 40 years of experience in the construction industry managing projects in Australia and overseas.



Dr. Stephen Jonathan Whitty is Associate Professor of Project Management at the University of Southern Queensland, Australia. A particular focus of his research is to better understand the difference between how we actually experience project work and derive meaning from it and how we have culturally come to think about managing it, and how the disconnect between these may cause problems when we try to manage modern organisations. Jon has a principal interest in social and cultural evolutionary theory, and his research has helped reveal the 'humanism' in the complex behaviour of organisations. He publishes in journals and text books, and collaborates with a flourishing group of doctoral researchers.