

Participant perceptions of value:

**A qualitative framework for evaluating
project management training**

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DECLARATION

I declare that this Doctorate of Business Administration thesis is my own work and that all sources literary and electronic have been properly acknowledged as and when they occur in the body of the text.



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ABSTRACT

The purpose of this research project is to investigate individual perceptions and experiences of project management training in order to develop a qualitatively-informed framework for evaluation that enhances the understanding of participant values. Most existing training evaluation frameworks seek to assess the organisational impact of training. However, organisational changes do not primarily depend on the value of the training, but rather on the support and incentives provided for training transfer. This research concentrates on project management training courses delivered to university staff, and it is contended that assessing only at an organisational level may not always be most helpful. It is argued here that the effect on the individual is also important. Two research questions are developed: How do participants perceive value in the context of project management training? What are the key indicators for the identification of value in a participant's evaluation of project management training?

Thirteen in-depth, conversational interviews were conducted with participants who had attended project management training courses. The interviews were influenced by the concepts of memory, voice and reflection to achieve a greater depth, appreciation and understanding of the participant's perceptions of value. The participants were interviewed twice with the analysis of the first set of interviews informing the content of the second.

Two key arguments develop through the thesis. First, in relation to the form of evaluation, it suggests that for project management training the individual should be the focal point of the assessment. The evaluation should seek to understand, through memory and reflection, if a course has had any effect on the participant. This assumption implies a qualitative approach to evaluation is useful and, as it is counter to most existing models, necessitates the development of a framework which is more sensitive to participants' perceptions of value. Second, the thesis develops an argument about the content of the evaluation and the key features to be considered for project management training.

A framework is developed based on the findings of the study, and is presented and described here. It contributes to theory by enhancing Brinkerhoff's (2003) existing evaluation model and contributes to practice by detailing an applicable and useable evaluation framework.

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TABLE OF CONTENTS

Index of Appendices	viii
Index of Tables	viii
Index of Figures	ix
CHAPTER 1: INTRODUCTION	1
1.1. Research context.....	2
1.2. Research rationale	5
1.3. Aim and objectives.....	6
1.4. Structure of the thesis	8
CHAPTER 2: LITERATURE REVIEW.....	10
2.1. Introduction	10
2.2. The evolution of project management.....	11
2.2.1. Historical overview of project management	12
2.2.2. The increasing perceived value of formalised project management.....	14
2.2.3. Research on project management	16
2.3. Perceived value of project management training	17
2.3.1. Importance to participants of project management training	18
2.3.2. Method of facilitating project management training	21
2.3.3. Purpose of conducting project management training.....	23
2.3.4. Approach to delivering project management training	26
2.3.5. Content of the project management training course	29
2.3.6. Trainee characteristics that influence the perceived value of project management training	32
2.3.7. Summary of perceived value of project management training	35
2.4. Evaluation.....	36
2.4.1. Training evaluation	36
2.4.2. Project management training evaluation.....	39
2.4.3. Summary of evaluation	41
2.5. Perceived value within evaluation frameworks.....	42
2.5.1. Traditional frameworks.....	42
2.5.2. Alternative frameworks	51
2.5.3. Summary of evaluation frameworks.....	55
2.6. Conclusion to literature review	55
2.6.1. Perceived value in the evaluation of project management training.....	58
2.6.2. Problem statement and research questions	59
CHAPTER 3: RESEARCH METHODOLOGY.....	62
3.1. Introduction	62
3.2. Research philosophy	62
3.2.1. Ontological assumptions.....	63
3.2.2. Epistemological objectives	64
3.2.3. Axiological concerns	64
3.2.4. Methodological approach	66

3.3. Research method	67
3.3.1. Conversational interviews in exploratory qualitative research	68
3.4. Data collection.....	73
3.4.1. Phase 1 interview	74
3.4.2. Phase 2 interview	75
3.4.3. Researcher – Researched relationship	76
3.5. Sampling.....	79
3.5.1. Description of training programme.....	80
3.5.2. Study participants	82
3.5.3. Participants pen pictures	84
3.6. Data analysis	93
3.6.1. Transcription.....	93
3.6.2. Process of coding and analysis	94
3.6.2.1. Validity	98
3.6.2.2. Reliability.....	99
3.7. Ethics.....	101
3.8. Strengths and limitations	102

CHAPTER 4: FINDINGS 104

4.1. Introduction	104
4.2. Summary of thematic categories	104
4.3. Importance to participants of project management training.....	106
4.3.1. The role of experience in shaping participants perceived value of project management training	106
4.3.2. Enhancing career prospects through project management training.....	113
4.3.3. Individual expectation influencing perceived value	115
4.4. Method of facilitating project management training.....	120
4.4.1. Perceptions about the perceived value of facilitator practical experience	122
4.4.2. Participant perceptions of instructor credibility.....	123
4.4.3. Perceived difference between internally and external accumulated experience	129
4.5. Purpose of conducting project management training	140
4.5.1. Perceived value of project management training focusing on theoretical understanding.....	141
4.5.2. Perceived value in the application of project management learning	143
4.5.3. Improved self-efficacy or affirmation through a training course ...	145
4.6. Approach to delivering project management training.....	152
4.6.1. Perceptions of using professional methodologies as the basis of practice-led courses.....	152
4.6.2. Level of complexity for theoretically-based delivery.....	156
4.7. Content of the project management training course.....	161
4.7.1. Perceived value in hands-on exercises to enhance practicality of training course.....	161
4.7.2. Linking the case study content to a specific role or area	164
4.8. Trainee characteristics that influence the perceived value of project management training	169
4.9. Summary	178

CHAPTER 5: DISCUSSION	179
5.1. Introduction	179
5.2. RQ1: How do participants perceive value in the context of project management training?	179
5.2.1. Individual focus	179
5.2.2. Qualitative approach	181
5.3. RQ2: What are the key indicators for the identification of value in a participant's evaluation of project management training?	183
5.3.1. Features that affect participant perceptions of value	183
5.3.1.1. Importance to participants of project management training ..	185
5.3.1.2. Method of facilitating project management training	185
5.3.1.3. Purpose of conducting project management training	186
5.3.1.4. Approach in delivering project management training	187
5.3.1.5. Content of the project management training course	187
5.3.1.6. Trainee characteristics that influence the perceived value of project management training	188
5.3.2. Indicators of value	189
5.4. Proposed new framework	191
5.4.1. Project management training evaluation method	192
5.4.1.1. Memory	194
5.4.1.2. Voice	195
5.4.1.3. Reflection	196
5.4.1.4. Freedom	196
5.4.2. Project management training evaluation guide	197
5.4.3. Operationalising the framework	197
5.5. Theoretical and practice based contribution	200
5.6. Application to practice	205
5.6.1. Training coordinators	206
5.6.2. Training course designers	208
5.6.3. Course instructors	210
CHAPTER 6: CONCLUSIONS.....	212
6.1. Introduction	212
6.2. Achieving the aim and objectives	212
6.2.1. Aim	212
6.3. Objectives	213
6.3.1. Objective 1: To undertake a critical review of the literature on project management training and training evaluation frameworks	213
6.3.2. Objective 2: To draw on qualitative techniques to explore the perspectives of project management course participants on the value of the training	213
6.3.3. Objective 3: To develop an enhanced framework for evaluating project management training which is sensitive to participants' perceptions of value through the use of a qualitative methodology.	214
6.4. Answering the research questions	215
6.4.1. RQ1: How do participants perceive value in the context of project management training?	215

6.4.2. RQ2: What are the key indicators for the identification of value in a participant’s evaluation of project management training?	215
6.5. Reflection on strengths and limitations of the research	216
6.6. Contribution to theory	217
6.7. Contribution to practice.....	218
6.8. Directions for future research.....	219
References	221

INDEX OF APPENDICES

Appendix I: Summary of main literary arguments and authors	237
Appendix II: Summary of concerns developed from arguments	240
Appendix III: Trainee influencing factors.....	241
Appendix IV: Interview 1 schedule	242
Appendix V: Interview 2 schedule.....	243
Appendix VI: Training course programme descriptors	244
Appendix VII: Participant information sheet.....	247
Appendix VIII: Consent form	248
Appendix IX: Summary of emergent ideas within the literature review	249
Appendix X: Research concerns and summarised findings.....	250

INDEX OF TABLES

Table 2.1: Historical overview of project management development	14
Table 2.2: Summary of thematic categories.....	18
Table 2.3: Key arguments under the category 'importance'	20
Table 2.4: Key arguments under the category 'method'	23
Table 2.5: Key arguments under the category 'purpose'	26
Table 2.6: Key arguments under the category 'approach'	28
Table 2.7: Key arguments under the category 'content'	32
Table 2.8: Key arguments under the category 'trainee'	35
Table 2.9: Key arguments under the category ‘evaluation’	41
Table 2.10: Key arguments under the category ‘evaluation frameworks’	54
Table 2.11: Summary of key evaluation approaches	56

Table 3.1: Study participants.....	82
Table 4.1: Summary of thematic categories.....	105
Table 4.2: Key ‘importance’ findings in relation to the literature	118
Table 4.3: Key ‘method’ findings in relation to the literature	138
Table 4.4: Key ‘purpose’ findings in relation to the literature.....	151
Table 4.5: Key ‘approach’ findings in relation to the literature.....	160
Table 4.6: Key ‘content’ findings in relation to the literature.....	168
Table 4.7: Summary of influencing factors.....	170
Table 4.8: Key ‘trainee’ findings in relation to the literature	177
Table 5.1: Features that affect participant perceptions of value	184
Table 5.2: Indicators of perceived value in project management training	190
Table 5.3: Summary of arguments within the literature review with associated findings.....	202

INDEX OF FIGURES

Figure 5.1: Proposed project management training evaluation framework	193
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CHAPTER 1: INTRODUCTION

The purpose of this research project is to investigate individual perceptions and experiences of project management training in order to develop a qualitatively-informed framework for evaluation that enhances the understanding of participant values.

Organisations are increasingly using formalised project management approaches to improve workplace efficiency. As a result, project management training has also experienced a rise in demand and, in parallel, the requirement to evaluate the training has also grown. There are numerous existing evaluation models and frameworks with debates in the literature about the benefits and limitations of each. Similarly, there are many scholarly arguments about the structure, substance and style most suited to deliver project management training. This thesis interrogates and combines both these areas of study to examine how individual course participants perceive value in project management training. Furthermore, using participant understanding as a basis for evaluation, it proposes an enhanced framework for assessing project management training.

This thesis considers three key areas: first, whether an individual or organisational approach provides a better understanding of the training intervention. Most existing evaluation models attempt to measure the quality of training by quantitatively assessing the organisational impact of a course. In this thesis, an argument is developed that participants attend project management training for a range of different reasons, with differing levels of experience, and each having specific expectations. The results of training can range from increased confidence, to affirmation of an existing skillset, or to increased efficiency in an area that does

not directly affect the organisation. As such, it is contended that project management training evaluation may be more suitably informed if it is focusing on the individual.

Second, there is consideration of whether a quantitative or qualitative approach provides more insights to the value of a training intervention. The argument is developed that if project management training evaluation is focused on the individual, then it may be more appropriate to use a qualitative method of assessment than utilising the quantitative or goal-based frameworks currently popular. This approach could provide insights that cannot be achieved by using a purely quantitative method.

Finally, the literature review reveals considerable variation between authors on the features that are important within project management training and, consequently, the elements used in evaluation. The research highlights the areas identified as most important by training participants and uses these to consider the main elements that should be supported during project management design, delivery and evaluation.

The research takes a qualitative approach to examine participant perceptions of the value of project management training. Based on its findings, a qualitatively-informed framework is developed that enhances the overall effectiveness of project management training evaluation.

1.1. Research context

For many organisations, project management is becoming an increasingly popular method of planning and controlling work (Alam *et al.*, 2008). It is necessary for these institutions to train staff to be capable of formally managing projects

(Berggren & Soderlund, 2008; Crawford, 2005; Mengel, 2008) and, consequently, there is a requirement to assess whether the training is beneficial (White & Fry, 2014). Most organisations perform some type of evaluation on the training delivered, however for many it is only a quick, simple assessment that results in little valuable data (Alliger & Janak, 1989). To many organisations the common measure of ‘value’ in project management is return on investment (Thomas & Mullaly, 2008). While this may provide the hard numbers often desired by senior management, it fails to include many of the other less tangible benefits of training (West, 2003).

Most existing training evaluation frameworks seek to assess the organisational impact of training through a variety of means, for example: return on investment (Phillips, 2003); organisational results (Holton, 2005); or participant impact on the workplace (Bramley, 1999; Hamblin, 1974; Warr *et al.*, 1970). However, organisational impact is dependent on a range of factors such as supervisor support and opportunity to apply which do not reflect the quality of a training course (Dermol & Cater, 2013). In a university setting it could be argued that assessing at an organisational level is unhelpful as participants are frequently working alone, on multi-location collaborations, or are completing doctoral study. In this environment each course participant attends training for different reasons and, for these people, the effect on the individual is more important than the focus on organisational benefit and impact, which may be several times removed and, thus, impossible to ‘prove’ a causal relationship.

Additionally, there is a debate in the project management literature around a science-practice divide in research (Aguinis *et al.*, 2011; Kwak & Anbari, 2009) and the difference in requirements between scholars and practitioners (Roth *et al.*,

2014). This argument extends into the training literature with contentions that complex, theoretically-based education is most suitable (Thomas & Mengel, 2008) countered by assertions that project management courses should reflect the work environment of practitioners (Locht, 2013; McDonald, 2010; Stoyan, 2008).

This research develops an argument that the primary issue with project management training is not the training itself, but that the generic evaluation techniques used to assess it are most problematic. If the assumption is made that in a university setting each participant has differing expectations and desires from a training course, using an all-purpose evaluation framework with pre-determined goals and measures may not truly uncover the assessment of every individual. Furthermore, traditional project management research is based predominantly within a positivist paradigm (Biedenbach & Müller, 2011; Bredillet, 2008) and existing evaluation frameworks focus on producing quantitative results (Tasca *et al.*, 2010). These are useful for demonstrating impact and contributing to performance data at an organisational level but do not focus on the individual.

It will be argued that, for project management training, the person may be a more appropriate focal point of the assessment and that the quality of an evaluation framework may be enhanced by seeking to understand, through memory and reflection, if a course has had any effect on the individual. This assumption implies a more qualitative approach to evaluation would be useful and necessitates the development of a more loosely-structured model that would accommodate these requirements.

1.2. Research rationale

Having been involved in large-scale projects for over 15 years, and running project teams in such diverse locations as Zürich, New York, Shanghai, Johannesburg and Ljubljana, in 2008, together with a business partner, I established Fistral Training and Consultancy Ltd. Fistral now delivers project management training and consultancy to organisations globally to a customer base that includes the European Space Agency, the NHS and Microsoft. A core area of Fistral's business is providing project management training for students and staff at many universities and research centres across the UK and Ireland. The training delivered in these universities is the subject of this research.

Customers are keen to assess the impact of training courses following delivery, and as an instructor, it is interesting that individual participants can rate the same event differently. From speaking to attendees, it is also apparent that they enrol on courses for a variety of diverse reasons and with differing levels of experience. In spite of this, the majority of customers still evaluate all courses using generic, numerical processes regardless of the topic or audience. I have observed that participants use the learning delivered in project management courses in a variety of different ways: some intended by the instructor, some specific to their personal environment. This trait is particularly prevalent in a university environment where the vast majority of participants are not project managers per se – they are often only interested in making their working lives easier.

This led me to question whether, for project management training, these organisations' methods of evaluation could be improved. The idea developed that assessing project management training against predefined criteria is difficult as

each person is different and expectations are often unknown. For project management training evaluation, perhaps it would be more appropriate to examine how the participants perceive the value of the training retrospectively rather than attempting to match a predefined template. This consideration forms the basis of this thesis.

1.3. Aim and objectives

The aim of this research is to develop a qualitatively-informed evaluation framework for project management training, which is sensitive to individual participants' perceptions of value.

The research objectives derived from this aim are:

1. To undertake a critical review of the literature on project management training and training evaluation frameworks.
2. To draw on qualitative techniques to explore the perspectives of project management course participants on the value of the training.
3. To develop an enhanced framework for evaluating project management training which is sensitive to participants' perceptions of value through the use of a qualitative methodology.

The research is situated in a higher education environment with participants from different universities, disciplines and job roles.

The first issue of whether an individual focus to evaluation, rather than solely organisational, could have benefits to project management training evaluation is examined while achieving Objective 1. The literature review (section 2.5, p42) suggested that most existing training evaluation frameworks are organisationally

focused, however the majority of participants in a university setting attend courses for personal development reasons and, as such, have differing perceptions of value. It is suggested that, for this type of project management training, placing greater emphasis on the individual during the evaluation may uncover elements obscured using current models. Objective 2, and the second key issue, was developed from this observation, as it was considered that adopting a qualitative approach to evaluation and placing the individual at the heart of an evaluation, contrary to many of the existing quantitative approaches, may be a more suitable method of examining this. Objective 3 addresses the third concern of identifying the key features, as perceived by participants, in project management training by developing an evaluation framework informed by the outputs of Objective 1 and Objective 2.

During the literature review a taxonomy was developed to discuss the scholarly arguments relating to project management training. It categorised the main concerns from the extant body of work and helped to structure discussion of the literature. This conceptual framework defined six separate areas where tensions existed: importance, method, purpose, approach, content and trainee. It was abbreviated to the acronym IMPACT and formed the basis of the development of the method for this research. It is used to organise the literature review, the findings and the discussion chapters of the thesis.

The literature review raised two research questions:

- RQ1. How do participants perceive value in the context of project management training?

To address this, a series of conversational interviews were undertaken to investigate RQ1 and address Objectives 1 and 2. The creation of the IMPACT taxonomy for organising the literature highlighted the second research question in this thesis:

RQ2. What are the key indicators for the identification of value in a participant's evaluation of project management training?

To answer this, the interviews were initially coded using the IMPACT classification which identified areas of particular significance to participants in their perceptions of value, with the qualitative methodology allowing detection of additional unexpected features. It also began to address Objective 3 by considering that an understanding of individual value assessments could inform an enhanced evaluation framework.

1.4. Structure of the thesis

The thesis is structured in 6 chapters. Chapter 2 is the critical review of the literature and focuses on investigating the existing body of scholarly work in three primary areas: project management; project management training; and training evaluation. This highlights gaps in existing evaluation frameworks and enables the development of the conceptual IMPACT taxonomy which informs the empirical research.

The research methodology is discussed in Chapter 3. An argument is presented to support the adoption of an interpretivist position. This includes discussion on the use of conversational interviews and the influence of the exploratory qualitative approach to this study. It is followed by a section discussing the role of the researcher as an 'insider' to the research setting.

Chapter 4 presents the findings of the research. It draws comparisons between participant responses and the existing body of work, before summarising the findings which address the concerns that emerged from the arguments in the literature.

The discussion of the research is contained in Chapter 5. It summarises the key findings by addressing the research questions, and presents an enhanced framework for evaluating project management training.

Finally, in Chapter 6, the conclusions drawn from this research are considered in conjunction with the contribution to theory and practice. It discusses how far the study has achieved its stated aim and objectives. It concludes by offering recommendations and direction for future research.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter investigates the literature in three primary areas: project management; project management training; and training evaluation. First, in discussing project management it provides a description, a definition and an explanation as to why project management is viewed as increasingly important to many organisations. Second, with organisations placing greater significance on projectised work there is a natural requirement for capable project managers, so there is specific consideration of the project management training literature. Third, this chapter discusses training evaluation: assessing the popular frameworks and taxonomies, and discusses their application specifically to project management training. Throughout the literature review a range of concerns are identified which are later used to inform the focus for the research. The chapter finishes by synthesising the project management training and evaluation literature within the context of perceived value, and concludes by detailing the two research questions that inform the study.

Following the early reviews of this body of work, six primary themes emerged. These themes were iteratively developed through the literature review and the pilot study to become the categories ‘importance’, ‘method’, ‘purpose’, ‘approach’, ‘content’ and ‘trainee’. These groupings reflect the current arguments and concerns surrounding project management training and lead to the abbreviation IMPACT. This taxonomy is used to structure and present the discussion on project management training. The six themes later form the basis

for the data analysis and allow the conclusions to show a clear link back to the literature.

2.2. The evolution of project management

Project management has been used in differing forms for millennia but it is only relatively recently that it has begun to be implemented as a formal method of increasing workplace performance. This section firstly discusses what is meant by the term project management before giving an overview of its history. It then examines the increased acceptance of project management as a formalised profession and finishes by highlighting the tensions between scholarly and practitioner research in this area.

Turner (1996, p342) describes project management as “the art and science of converting vision into reality”, which translates as completing a task or piece of work. The Project Management Institute (PMI) defines a project in simpler terms as “a temporary endeavour undertaken to create a unique product, service, or result” (PMI, 2013b, p3), meaning delivering within a specified time limit. This is crucially important in understanding project management today, as it indicates that the majority of people currently employed commonly engage in some form of project activity – i.e. producing work to deadlines – even if it is not considered as such. Therefore, it could be suggested that project management (and resultantly project management training) is relevant to anybody regardless of sector, discipline or location.

Furthermore, project management is defined as “the application of knowledge, skills, tools, and techniques to ... meet the project requirements” (PMI, 2013b, p5) with the project manager being the person responsible for “achieving the

project objectives” (PMI, 2013b, p16). Although perhaps vague, these descriptions encapsulate and further strengthen the notion of project management being applicable and useful to all. In fact, it has been claimed that the sole method of achieving anything meaningful within an organisation is through the utilisation of projects (Qureshi *et al.*, 2009).

2.2.1. Historical overview of project management

In order to understand the discussions surrounding modern project management practice, it is useful to appreciate the development from its earliest beginnings to the profession as recognised today. This sub-section examines how project management has evolved over time and why it is increasingly regarded as being core to many business operations. This is important because, first, it shows that the subject is worthy of investigation, and second, that if more organisations are relying on it then the requirement for dedicated training will grow. The historical development is summarised in Table 2.1 below.

While the term ‘project management’ may be perceived as new (Kwak & Anbari, 2009), there is evidence to suggest that in reality it has been in existence for a long time under different guises. Project management has been used throughout history by great civilisations such as the Egyptians, Greeks and Romans (Engwall, 2012; Walker, 2008; Witzel, 2009) where complex work required organisation of materials and resources as effectively as possible. Between 1910-15 Henry Gantt designed the popular scheduling chart which still bears his name (Morris, 1997). Although this was used by the United States during World War I, it was not until the 1950s that project management was developed as a discipline in its own right to manage US military research projects (Archibald, 1987; Loo, 1996). A means

of analysis known as PERT (Program Evaluation and Review Technique) was created which also included Critical Path Method (CPM), and these have formed the foundations of project management through to today (Engwall, 2012).

The development of project management to complete research projects is particularly noteworthy for this study. One of the reasons for slower adoption of project management in an academic setting is that it has been viewed as being too business-oriented and not flexible enough for the uncertainty of a research environment. However, the literature indicates that the uncertainty of research is precisely the purpose for which modern project management evolved and was successfully implemented (Engwall, 2012).

In the 1960s and '70s project management was adopted predominantly to manage projects in the newly emerging computational and information systems industry (Wallace, 1990), and was subsequently taken up by other engineering disciplines. This led to the development of various project management bodies of knowledge (given the acronym PMBOK) and early methodologies such as PRINCE (PRojects In Controlled Environments). However, it was not until the 1990s that it became widely embraced as method of managing any project regardless of area, which led to an updated version known as PRINCE2 (OGC, 2005) and other methods such as Extreme and Critical Chain Method (CCM) (Goldratt, 1997).

Pant & Baroudi (2008, p124) argue that project management is now widely regarded as “the ‘new’ form of general management” as it gives more robust mechanisms for planning, integration and control of deadline-driven work with the ultimate aim of improving organisational performance (Matter *et al.*, 2012).

In recent times project management has overtaken traditional functional management (Alam et al., 2008) as the most popular method of delivering

Table 2.1: Historical overview of project management development

		Ancient History	1900-40s	1950-60s	1970-80s	1990-2000s	Today
Evolution of Project Management	Methodologies	Informal	Gantt Chart	PERT CPM	PMBOK PRINCE	PRINCE2 Extreme CCM	Agile PMBOK v5
	Primary users	Egyptians Chinese Romans Greeks	Civil & construction engineering Military	US Defense (Polaris, NASA)	Computer systems Construction engineering	IT projects Infrastructure Service industry	All projects
	Research	-	Academic (classical and scientific management)	Practitioner (Military)	Practitioner (engineers, computer science)	Practitioner and Academic	Academic and Practitioner

successful projects in an ever-changing and uncertain climate. As a result, existing methodologies have been updated to reflect the current work environment (version 5 of the PMBOK) as well as newer developments such as Agile (Wysocki, 2014) which works using iterative, monthly cycles as phases (Fernandez & Fernandez, 2009).

2.2.2. The increasing perceived value of formalised project management

One reason for the rise in popularity of a formalised project management approach is its transferability across sectors and disciplines (Loo, 1996; PMI, 2011; Wearne, 2008; Wirth, 1996). These authors contend that project management fundamentals can be applied to almost any aspect of the work environment almost regardless of industry, sector, discipline, geography or scale; which reinforces the view that it is now valued as a cross-area profession in its own right.

The ability to adapt and react to sudden changes in today's dynamic business environment is coming under greater scrutiny. It is, therefore, incumbent upon organisations to develop their competencies to be able to do this (Suikki *et al.*, 2006). Suikki *et al.* claim that project management is an ideal vehicle through which to manage business in this uncertain climate as the definition of a project is closely aligned with that of change (namely, a focus on something different or unique). Others argue that project management success criteria (normally to time, on budget and to specification) are too limited for many modern projects (Atkinson, 1999) and should include less conventional measures such as stakeholder happiness (Qureshi *et al.*, 2009). Nevertheless, project management has continued to grow as a discipline and its popularity has broadened.

If project management is an effective means of managing workloads, then it may be prudent for organisations to invest in training their employees to become more efficient. This is supported in the literature with authors maintaining that as organisations become more projectised in their structure and definitions of work, there is the knock-on effect of an increased need for trained and skilled project managers (Alam *et al.*, 2008; Berggren & Soderlund, 2008; Crawford, 2005; Mengel, 2008). As a result many people from a non-traditional project management background (e.g. no longer solely IT or engineering) are emerging as the new generation of project managers (Edmonds, 2010).

In short, project management has developed to become regarded as one of the key methods of efficiently managing work in many organisational environments and, consequently, there is an increased requirement for dedicated training in this area.

2.2.3. Research on project management

In parallel, with the increased use of project management as a method of supervising and controlling organisations, Turner (2010) suggests that project management research has matured over the past 20 years. From initially being primarily practitioner focused, project management has become an academic research field in its own right. This transformation has directly contributed to the major improvement in quality and rigour of research in the field, but this short lifetime also explains the reason for a lack of literature found in certain areas (Crawford, 2005). Traditionally, project management research has been highly quantitative but recently there have been calls for greater reflection on the “social relations and human aspects at the center of projects” (Florice *et al.*, 2014, p1093).

Kwak & Anbari (2009, p435) state that there remains discussion as to “whether ‘project management’ is a practice or an academic discipline” and most publications adopt one of these two positions. During the search of the literature the majority of papers found come from an academic perspective. Giangreco *et al.* (2010) and Vermeulen (2007) explicitly request a mutually beneficial exchange of ideas as the gap between scholars and professionals appears to be getting wider.

The tension existing between academics and practitioners when studying project management is of importance within this research because of the relevance it has to the study participants. This point will be revisited and developed in later sections as it is central to the differences in views on best method of delivery, content of courses and purpose of training which, ultimately, lead back to perceived value. This research examines project management by being an

academic work which is practitioner focused (and led). The conclusions of this research aim to contribute to Giangreco *et al.* (2010) and Vermeulen's (2007) calls by being both the scholarly requirement for theory as well as the professional focus on applicable practice.

2.3. Perceived value of project management training

With the increasing view of project management as an effective and relevant way to manage and deliver in many organisational environments, the requirement for dedicated training has risen in parallel (Lee-Kelley & Blackman, 2011).

Value within a project management context is most frequently aligned to improvement in the efficiency of project management implementation within an organisation (Mullaly & Thomas, 2009) and, therefore, project management training is assessed based on that change. These measures are often strategic such as increased revenue, saving cost and time, and improving quality (Alsudiri *et al.*, 2013). However, attempting to link causally between these organisational changes and the training intervention is nearly impossible (Alliger *et al.*, 1997).

Although proving links between training and organisational impact is difficult, there is a wealth of literature considering the optimal environment, structure, content and delivery of project management training. This is the area considered in the following section as these elements may influence the perceived value of course participants. While reviewing the literature and conducting the research a conceptual framework was iteratively developed to structure the literary arguments. The framework is used as a lens to view the primary concerns that could influence participants' perceptions of value. Six key areas are: the importance of project management training as perceived by the participant; the

influence that the method of facilitation has on the value assessment; the purpose of the project management training from which participants will derive value; the favoured approach taken in delivering the training; the content of the training event; and, lastly, trainee characteristics that may influence participant value propositions.

Table 2.2: Summary of thematic categories

Category	Description
Importance	The value participants placed on undertaking of project management training prior to the course
Method	The perceived value of differing types of instructor for course facilitation
Purpose	The primary function, and therefore value, of project management training
Approach	The favoured style and level of detail of the training course to deliver optimal perceived value
Content	The material and subject matter delivering most value to participants
Trainee	Aspects of participants personality that could influence their evaluation

These categories have been summarised in **Error! Reference source not found.** and have been abbreviated to IMPACT. The following sections are structured under these headings. Small sub-tables capture the key arguments and concerns at the end of each sub-section, with the complete review summarised in tables in Appendix I and Appendix II.

2.3.1. Importance to participants of project management training

‘Importance’ was developed as a grouping to discuss whether training, or education, is viewed as significant and whether stakeholders perceive it to have any value or worth within the field of project management. It questions whether benefit is gained from training in this area (Edmonds, 2010; Eskerod, 2010; Lee-Kelley & Blackman, 2011; Suikki *et al.*, 2006), or if on-the-job experience is the best method of learning (Davies, 2000). Without understanding the value of the course (or perceiving training as valuable) participants are unlikely to attend. So

‘importance’ is significant as it is a factor that may influence the commissioning of courses, trainee and managerial expectations, as well as reasons for participant sign-up.

First, there is a challenge as to whether project management training is useful at all. Davies (2000, p439) states that typically “80% of senior manager’s knowledge is derived from their own experience”. He implies that the vast majority of learning is work-based although there is limited literature to support this assertion (Griffin, 2011). Davies’ paper is an exception in an otherwise unanimous field where authors agree to the importance of professional development training in all areas of work (among others: Edmonds, 2010; Eskerod, 2010; Lee-Kelley & Blackman, 2011; Suikki *et al.*, 2006). In tough economic times organisations can be reluctant to dedicate financial resources to project management training (West, 2003). One reason given for this is the difficulty in evaluating training activity in this area. To address this, Tasca *et al.*, (2010) suggest that organisations should not focus solely on return on investment as an assessment of the value of project management training. It is proposed by McCreery (2003) that evaluators should also consider non-financial measures such as efficiency, productivity, improved team working and communication. These arguments question whether evaluators should consider the specific needs of project management training assessment more closely.

‘Importance’ covers the initial perceived value that participants place on a training course: their hopes when they sign-up; their reasons for attending; and their personal expectations. If these personal expectations are not satisfied then the course may be evaluated poorly despite achieving all planned deliverables (Diamantidis & Chatzoglou, 2012). In addition to the classroom experience itself,

the effectiveness of training can also be influenced by events both preceding and after the courses which Santos & Stuart (2003, p31) categorised as “ability, personality, motivational and work environment”. If these factors are going to influence the effectiveness of training, it could be supposed that they may also influence a participant’s assessment of the value of the training. Being sympathetic to the wants and needs of participants is central to gaining a clear understanding how they view project management training. The primary arguments from this section are summarised in Table 2.3.

Table 2.3: Key arguments under the category 'importance'

Argument(s)	Key author(s)
Project management ability is derived primarily from experience not training	<i>Davies, 2000</i>
Training can help to improve project management ability	<i>Edmonds, 2010</i> <i>Eskerod, 2010</i> <i>Lee-Kelley & Blackman, 2011</i> <i>Suikki et al., 2006</i>
An individual’s perceived value is strongly influenced by their expectations	<i>Santos & Stuart, 2003</i>
Existing evaluation frameworks may not adequately assess project management training	<i>West, 2003</i> <i>Tasca et al., 2010</i>

Many authors argue for the importance of training in both a commercial and academic environment. Experience and prior knowledge are important factors for professional development, but are subjective value assessments often not considered in current evaluation methodologies. There are two primary concerns to emerge from these arguments: first, whether participant expectations and prior experiences influence their perceived value of project management training; and second, whether there is a requirement for a bespoke framework for evaluating project management training.

2.3.2. Method of facilitating project management training

If the expectations of participants can affect their judgement of a training course, then similarly the knowledge, ability, teaching style and even credibility of the instructor may also influence their perception of value (Diamantidis & Chatzoglou, 2012). The category of ‘method’ was developed to discuss the facilitation of project management training courses in order to identify whether there is a preferred means of delivering the learning.

There are two differing viewpoints, with very little middle ground, when it comes to who is most suitable to facilitate project management training. Some commentators (Edmonds, 2010; Pant & Baroudi, 2008) support the view that project management training should be applicable, practitioner-led and guided by experts. Loo (1996) argues for ensuring that attendees are learning from someone who is teaching the tools they are using day-to-day and is genuinely committed to project management as a profession, not just tokenism. Others point to the very nature of a project being too unique and complex to easily teach a generic skillset (Crawford *et al.*, 2006; Thomas & Mengel, 2008; Winter *et al.*, 2006). Crawford *et al.*, (2006, p722) suggest that most project management training simply leads to the development of “trained technicians” who can apply techniques but struggle to act reflectively in complex, uncertain environments. That argument fails to recognise that the fundamental concepts of project management are actually straightforward (Economist Intelligence Unit, 2009). Over-complication can lead to confusion over understanding and failure to apply, which is Mulholland *et al.*'s (2005, p127) explanation as to why “most training fails to transfer to the job”. Globerson & Korman (2001) argue that this inability to embed the learning in a

work environment is often due to the manner of training delivery, hence the identification of ‘method’ as a key category in considering training.

The desired outcomes of the training course also link to the optimal delivery method and further towards what type of person makes the most suitable instructor. Establishing credibility is a major influencing factor on attendee evaluations of training (Kouzes & Posner, 2005), but the subject of commercial trainers is an area almost barren of research (Hassi *et al.*, 2011). If applicability and problem solving are of equal importance to theoretical understanding, then experience and practicality become desirable traits for an instructor (Hassi *et al.*, 2011; Kouzes & Posner, 2005). The evidence indicates that, for an applied subject like project management, a practitioner-led approach may be better received by course delegates. Ojiako *et al.* (2011) conclude the correct balance needs to be struck between theory and practice and, importantly for project management training, educators need to become coaches and facilitators of learning rather than purely lecturers. This is reflected in the findings of Teplitz (2001, p. 4) when he claimed that 72% of organisations commissioning project management training prefer to use practitioner consultants with only 1/3 considering using university faculty staff. This raises an important question as to why practitioner-led courses would appear to be more popular. Teplitz (2001) fails to give any answers for this, but it is especially noteworthy for this research as the subject is the delivery of project management training courses by a practitioner in a university setting.

Consideration of the arguments surrounding ‘method’ (Table 2.4) has raised three major concerns for this research: whether the participants have a preference for theoretically or practitioner-led training and the reasons for their inclination; whether participants value the rigour evident in many of the formal HEI offerings

Table 2.4: Key arguments under the category 'method'

Argument(s)	Key author(s)
It is preferable for project management training facilitated by those with a robust theoretical grounding in the subject	<i>Crawford et al., 2006</i> <i>Thomas & Mengel, 2008</i> <i>Winter et al., 2006</i>
Project Management training is best facilitated by experienced practitioners	<i>Edmonds, 2010</i> <i>Loo, 1996</i> <i>Pant & Baroudi, 2008</i> <i>Teplitz, 2001</i>
The experience of practitioners lend credibility to the learning and enhance the perceived training value	<i>Hassi et al., 2011</i> <i>Kouzes & Posner, 2005</i>

or have greater appreciation for the practicality more commonly offered by an external provider; and, whether there a perceived increase in credibility attached to the learning as a result of it being practitioner-led. These issues are of particular interest as there is currently little literature related to external providers of project management training within a university context (Lebcir *et al.*, 2008).

2.3.3. Purpose of conducting project management training

The ultimate goal and objectives of project management training has been classified as ‘purpose’ and considers whether the training is focused primarily on developing a thorough understanding of the subject, or concentrating on applied skills. Many of the evaluation frameworks and models (discussed in section 2.5, p42) have the establishment of a clear and measurable purpose core to their effective implementation, so determination of outcomes is a crucial input to the choice of methodology. Misalignment of the purpose of the training and needs of the participants may impact on both the real and perceived value of the training course. This section discusses this issue before comparing training and education, and concludes by situating them within a project management context.

There are two differing points of view when it comes to the desired outcome of project management courses: first, that professional development should be focused foremost on achieving a thorough and complex understanding of the subject (Thomas & Mengel, 2008); or, second, that to be beneficial the learning needs to be concentrated on applicability (Locht, 2013; Stoyan, 2008) and addressing genuine problems in a realistic way (McDonald, 2010). When investigated further it appears that many of these differences of opinions stem from the science-practice divide that exists in the field (Aguinis *et al.*, 2011; Kwak & Anbari, 2009; Roth *et al.*, 2014; Walker *et al.*, 2008).

At the heart of the perennial ‘practitioner versus academic’ project management debate is the difference between the often synonymous terms ‘training’ and ‘education’. Training can be defined as “the acquisition of skills, concepts, or attitudes that result in improved performance in an on-the-job environment,” (Goldstein, 1980, p230), with Garavan (1997) adding that it is often about learning the correct way to do something rather than developing an ability to make choices. For this reason it is often more job specific than education and can be completed more quickly. Education has a tendency to be more about ideas, theories and general principles, and is not as readily applicable as training (Garavan, 1997).

Project management courses are normally concerned with improving the skills of participants as quickly and efficiently as possible. The immediacy of results that good training should bring and the desire for quick improvement (Burke & Hutchins, 2007) could indicate that it may be better to take a training – rather than education – approach to project management course design. Another distinction relevant to this study is in the different approaches to evaluation. Training is often

evaluated against on-the-job performance, whereas education is in terms of a pass/fail assessment of knowledge. Garavan (1997) also comments that training is normally aligned to organisational needs, with formal education looking to institutional and individual needs.

These differences between training and education (applicability versus theory; speed versus depth) are extremely pertinent for project management training and could be the reason that the vast majority of organisations would go for non-academic training providers (Teplitz, 2001). It also returns to the debate highlighted by Kwak & Anbari (2009) over whether project management is an academic or practical discipline. Universities now treat the employment statistics of their graduates with great importance. Despite this, there remain continual and repeated calls to improve the employability of students (Bromley, 2010; Golovushkina & Milligan, 2013; Mellors-Bourne *et al.*, 2013; Rae & Woodier-Harris, 2013; Rae, 2010; Smith *et al.*, 2010; Stoyan, 2008; Vitae, 2012, 2013; Williams *et al.*, 2013). One reason for this, particularly in a project management setting, is that the type of learning required to have highly competent project managers is not easily delivered through traditional education due to its necessity to be applied (McCreery, 2003); hence the subsequent assessment of the training is equally as tough (Barron, 2005).

There is evidence to suggest that greater consideration should be given to whether the training is primarily about personal development or attempting to contribute to improved organisational efficiency and change (Ojiako *et al.*, 2011). For instance, employers insist on a workforce that requires little additional training before being productive and does not rely solely on degree knowledge (Davies, 2000; Pant & Baroudi, 2008). Barron (2005) argues that if this is not delivered (and can be

subsequently assessed) then the initiative, in terms of providing future and/or improved project managers, has failed. From a project management perspective this brings into consideration whether education (as opposed to training) in this field is either desirable or beneficial, and raises the concern for this research as to whether the difference is either recognised or appreciated by participants

Table 2.5: Key arguments under the category 'purpose'

Argument(s)	Key author(s)
Project Management training outcomes should deliver thorough subject understanding	<i>Thomas & Mengel, 2008</i>
Project Management training outcomes should focus on workplace applicability	<i>Locht, 2013</i> <i>McDonald, 2010</i> <i>Stoyan, 2008</i>

To summarise this section, some commentators believe that project management training should be primarily based around theory while others argue that it should be practical (Table 2.5). This highlights the differences between education and training with the latter possibly being more desirable in achieving the usual goals of project management improvement: namely practical, applicable skills. From these arguments the concern emerges of whether participants themselves find value in one or other or a mix of approaches.

2.3.4. Approach to delivering project management training

The different methodologies, styles and level of detail adopted in designing project management training courses have been collated under the category of 'approach'. This section further interrogates the two differing viewpoints that developed previously: that project management training is too heavily practitioner-led; or that there is greater perceived value in it being practitioner-

centric as it is a practical skill. Here these views are considered in the context of the subject matter rather than the instructor.

There are many alternative ways of managing projects and a similarly vast number of standards governing project management application. Most frequently, project management training has been charged with being too simple and centred too heavily around professional bodies of knowledge (Crawford *et al.*, 2006; Ojiako *et al.*, 2011; Thomas & Mengel, 2008; Winter *et al.*, 2006). It is argued that basing training on the ‘one-size-fits-all’ approach that the traditional methodologies provide, is ineffectual as all projects are different (Zhang & Xu, 2008). This argument could also be supported by the vast number of projects that are still reported as being unsuccessful despite being run by trained professionals (The Standish Group, 2009; Thomas & Mengel, 2008). Despite this, Zwikael & Gonen (2007) still believe that success can be improved by providing better project management training.

Using many of these methodologies and their associated guides (for example APM, 2012; OGC, 2005; PMI, 2013b) in day-to-day work, it can be acknowledged that most of the tools and techniques are actually relatively simple (Economist Intelligence Unit, 2009). Sometimes people confuse complexity for intelligence, and neglect techniques that appear straightforward as there is a feeling that their simplicity devalues them (Economist Intelligence Unit, 2009). However, it could be claimed that much of the research that is critical of training practice is based on single case studies. This is in contrast to professional or organisational bodies of knowledge have been developed using the combined experience of hundreds of experienced practitioners on thousands of projects (Crawford *et al.*, 2006). So, although perhaps lacking theoretical rigour, the

evidence suggests that these are techniques that have been applied, tested and refined on very large sample sizes. Barron (2005), Córdoba & Piki (2011) and Edmonds (2010) argue that project management training should reflect this professional practice with Aguinis *et al.* (2011) adding that failure to do so risks delivering theory that practitioners view as lacking relevance in their day-to-day environment.

Table 2.6: Key arguments under the category 'approach'

Argument(s)	Key author(s)
Project management training is ineffectual due to its simplicity Project management is based too heavily on professional bodies of knowledge	<i>Ojiako et al., 2011</i> <i>Thomas & Mengel, 2008</i> <i>Zhang & Xu, 2008</i>
Project management technique is not complex, so training reflects this Project management should be based on the tools used by practitioners	<i>Barron (2005)</i> <i>Córdoba & Piki (2011)</i> <i>Edmonds (2010)</i>

So, there is an argument that project management training is too simple to reflect the complexity of the real world. On the other hand, some assert that although it may be simple, it is based on years of experience by people who actually do it – so it is worth learning. These contentions are summarised with their proponents in Table 2.6. This is important because participant expectations of approach and what they will receive during the training event are likely to influence their ultimate perceptions of value. From these arguments the debate emerges as to whether participants make any distinction between the two approaches and whether they have a preference for either.

2.3.5. Content of the project management training course

The category of ‘content’ was created to consider the material of the course or programme. It also includes the elements of learning that the participants will take away with them post-training that may influence their perceptions of value.

As with the opinions on understanding versus problem-solving, once again there are two divergent viewpoints when it comes to the content of the training. These are: first, that many personal development courses within educational institutions insist on having a strong theoretical underpinning (Ríos *et al.*, 2010; Tynjala, 2008); or, second, to optimise participants training experience, applicable tools and techniques should be the focal point of any event (McCreery, 2003). This, however, is not only confined to the manner in which the subject is addressed during the training, but also to the research itself in this area.

Aguinis *et al.* (2011, p397) argue that a “science-practice divide” exists within the field possibly due to a difference in requirements between scholars and practitioners, or educators and trainers. This often results in professional perception that academic research lacks relevance (Aguinis *et al.*, 2011; Vermeulen, 2007), and the contrasting scholarly view that practitioner-led research lacks rigour (Nienaber & Roodt, 2008; Turner, 2010). Resultantly, many academic project management programmes have relied heavily on theoretical teaching (Ríos *et al.*, 2010). This is especially prevalent in degree programmes and modules, but also with staff training run internally, and is an extension of the discussion about the purpose of the programme: education or training.

Some writers suggest that a focus on theory sometimes leaves students lacking in ‘real world’ applicability which is essential if theory is ever going to become

functional (Loo, 1996; McCreery, 2003; Zwikael & Gonen, 2007). Aguinis *et al.* (2011), Kwak & Anbari (2009), McDonald (2010) and Vermeulen (2007) all propose that a significant gap exists between abstract understanding and real life application. While suggesting that cerebral knowledge (essentially the project management theory) can be conveyed and assessed (which often constitutes a written examination at the end of a module), McDonald (2010, p627) voices concerns over the “contextual realism” existing in many formal project management education programmes. By this he means the ability to map the learning to real life scenarios, and echoes the previous education or training, theory or practice arguments.

An issue for many training providers is that customers wish exercises and case studies to be explicitly linked to and reflective of their particular working environment. Some argue that to be relevant, project management training should satisfy this desire and attempt to closely match real life (Grossman & Salas, 2011). Others, however, express a preference for generic training that can be applicable to all and reduces the need of retraining before each new project (Ellis *et al.*, 2005; Williams *et al.*, 2013). Additionally, attendees will have different expectations and needs – something which generic training is better situated to deliver (Divjak & Kukec, 2008). There is a lack of research on individuals’ views on this, which raises issues of whether participants in this study have a preference for bespoke or generic content.

The requirement for practicality is a view supported by several commentators (Bhatti *et al.*, 2013; Davies, 2000; Mengel, 2008; Pant & Baroudi, 2008); with Mengel (2008) highlighting that, in addition to the ‘text book learning’, demonstrating applicability is a key method of maintaining motivation and student

engagement. Divjak & Kukec (2008) look at teaching project management to both professionals and, most pertinently from this study's perspective, postgraduate students. Their research points towards two key elements in leveraging the greatest efficacy from the teaching: it has to be 'real life' and must have very clear outcomes. This is important if it is to produce the next generation of work-ready project managers (Golovushkina & Milligan, 2013; Rae, 2010; Stoyan, 2008).

Accurately reflecting 'real life' in a training environment can sometimes prove to be problematic given that management as a discipline is in itself so dynamic and changeable (McDonald, 2010). McCreery (2003, p233) bridges the gap somewhat by making the case for project management being both theory- and practice-based. However, he concludes that above all, for optimal retention, the project management training must be applicable (Elliott *et al.*, 2009; Globerson & Korman, 2001). Essentially, this type of teaching could be categorised as learning "for" rather than "about" (Rae, 2010, p594) where there is a tangible output rather than just knowledge. This suggests again, that a training, rather than an educational, focus may be more suitable for project management.

To summarise, Berggren & Soderlund (2008, p295) express one of the prevailing attitudes that "the image of project management education portrayed by the critics is a field of knowledge divorced from solid research". Yet despite this, it is clear that there are many who argue that for it to be beneficial any teaching must be applicable. This continues the thread of whether education or training should be central to project management teaching.

From these arguments, summarised in Table 2.7, two main concerns have emerged: first, whether participants have a preference for application or theory in

the course material; and, second, whether they perceive value in linking material to their specific work environments or are they satisfied with generic content.

Table 2.7: Key arguments under the category 'content'

Argument(s)	Key author(s)
Many academic project management programmes are theoretically rigorous but lack 'real world' applicability	<i>McDonald, 2010</i> <i>Ríos et al., 2010</i> <i>Vermeulen, 2007</i>
Project management training material should be primarily practically-based	<i>Davies, 2000</i> <i>Divjak & Kukec, 2008</i> <i>McCreery, 2003</i> <i>Pant & Baroudi, 2008</i> <i>Rae, 2010</i> <i>Zwikael & Gonen, 2007</i>
Close alignment of material with attendees working environment is desirable	<i>Grossman & Salas, 2011</i>
Generic material is preferable as it allows participants to consider their own method of application	<i>Ellis et al., 2005</i> <i>Williams et al., 2013</i>

2.3.6. Trainee characteristics that influence the perceived value of project management training

'Trainee' was developed to categorise characteristics that may have an influence on a participant's value assessment of a training event. It is not only the intervention itself that is responsible for the success of the training but the trainees themselves and their organisation (Locht, 2013). Much of the literature surrounding personal attributes affecting learning is in the field of training transfer. Although this study is an exercise in investigating training evaluation, the ability to use the learning could have an impact on the participants recollection of a course and, as such, training transfer should be considered. The literature around the subject is considerable, so this section focuses only on that which is relevant to training evaluation.

Baldwin & Ford (1988) conducted a much-cited literature review on training transfer and suggested that the level of transfer of a training course is linked to factors within the work environment. Cheng & Ho (2001) built on this work by authoring a meta-analysis of the literature in the decade following Baldwin & Ford. They suggested a research agenda to progress this further but little has been published since (Kazbour *et al.*, 2013). Authors have focused on their particular areas of interest when investigating the influencing factors. Noe (1986) proposed that a trainee's behaviour in training is dependent on three variables (ability, motivation and environment) and developed an expectancy model showing how attitudes can affect outcomes. Holton (2005) added secondary influences to this, such as individual characteristics, training readiness and job attitudes into his training evaluation framework. This is supported by Velada & Caetano (2007) who found that occupational satisfaction and individual reactions play an important role in enhancing training transfer as does, crucially, the perceived importance of learning.

The literature of training transfer can be summarised into a number of contributory factors including: cognitive ability, motivation and perceived value or utility (Burke & Hutchins, 2007). There is great discussion surrounding factors in the work environment that encourage training transfer, but almost no consideration of the impact of the personal (or non-work) environment. Additionally, most of these existing studies are quantitative in approach which highlights a potential gap for qualitative research in this area. All the authors highlight the impact that individual factors and characteristics have on training. However they also caution against assuming causality, as proving direct links to training effectiveness is extremely difficult, if not impossible. For this study it

would be interesting to investigate if these personal attributes (for example: confidence, motivation and ability) have any bearing on how participants evaluate project management training.

Personal confidence comes under the title of self-efficacy and is widely regarded as a key factor linked to improved learning (Salas & Cannon-Bowers, 2001). It is defined as having belief in one's capabilities and building confidence in one's skills (Sadler-Smith, 2006). This is crucial to training such as project management, where having the ability and confidence to utilise new tools and techniques is key to embedding learning and sustaining change post-training. It would be interesting to identify if any participants perceived a change in their self-efficacy subsequent to project management training.

A comparison was drawn between five of the key works linked to training evaluation over the past 30 years (Cheng & Ho, 2001; Holton, 2005; Noe & Schmitt, 1986; Russ-Eft & Preskill, 2001; Warr & Bunce, 1995). The results can be seen in Appendix III. While in each of these works many additional considerations were implied, only those factors explicitly detailed have been listed. These have been organised into six categories: demographic, attitudinal, experience, application and transfer, learning style, and support. Attitudinal was further sub-divided into attitude pre-, during- and post-training. As these factors, and hence the derived categories, are generic to training evaluation it would be interesting to address whether any are particularly significant (or, alternatively, not applicable) within the context of project management training evaluation. The main arguments from this section are summarised in Table 2.8. From these arguments, one overarching concern developed: whether these trainee

characteristics hold a significant influence over a participants perception of the value of project management training.

Table 2.8: Key arguments under the category 'trainee'

Argument(s)	Key author(s)
Self-efficacy is key to improved learning	<i>Sadler-Smith, 2006</i> <i>Salas & Cannon-Bowers, 2001</i>
Perceived value of training is strongly influenced by individual, personal characteristics	<i>Holton, 2005</i> <i>Noe, 1986</i> <i>Velada & Caetano, 2007</i>

2.3.7. Summary of perceived value of project management training

At the centre of the debate in project management training literature is the reason for delivering project management sessions: whether it is education or training. This tension between education and training manifests itself throughout the body of scholarly work. There are a number of key themes that the literature discusses and could influence participants' perceived value of project management training. For example, whether the purpose of the course aligned to participant requirements, the preferred method of facilitation for the individual, the approach to be adopted to deliver optimal participant value, and even the content of the material of the course itself. Perceived value is similarly exhibited in the category of 'importance' when considering pre-training expectations. However, the evidence in the literature suggests that for the vast majority of courses the desired outcome is more efficient project managers. This implies a training purpose taking a practitioner-led approach with the content focused primarily on applicability. Whether this proposition is reciprocated in the views of participants in this study will be one of the means of assessing their perceived value of project management

training. These arguments have been collated and summarised in a table in Appendix I with Appendix II containing specific concerns that have been raised.

2.4. Evaluation

With project management becoming more popular as a discipline, and associated courses on the increase, there is a natural desire to evaluate the training by functional managers, training managers and instructors (Cifalino & Baraldi, 2009; Lee-Kelley & Blackman, 2011; Tharenou *et al.*, 2007). There are many different evaluation models, frameworks and taxonomies to choose from and determining which is most suitable for a particular scenario is neither a simple task nor a recent issue (Dionne, 1996). Evaluation is further complicated by differing perceived values amongst evaluators and diverse needs between different stakeholders (Nickols, 2005). This section initially considers general training evaluation before specifically looking at evaluation of project management training courses. There is comparison and appraisal of some of the most popular training evaluation frameworks and models. The section concludes with discussion as to which of these may be best applied to project management training in order to understand the perceived value of participants.

2.4.1. Training evaluation

Everybody is constantly evaluating and each individual perceives value differently. Whether it is assessing a training course; buying a car; determining which word to use in a thesis; or just deciding what to eat for lunch. Evaluation is so ever-present that Stufflebeam (1998, p289) argues that evaluation is not just the domain of the specialist but it is a “critical and ubiquitous societal function”. It follows that if every individual is constantly evaluating there will exist difficulties

in addressing inherent human subjectivity in terms of value, bias and context. In a training event participants' valuations and feedback can vary similarly (Wearne, 2008). In order to make any type of evaluation an understanding of value is required (Nickols, 2005) which, again, is highly subjective and can be based on factors such as utility or appeal.

There are many different definitions of training evaluation. Barron (2005, p8) proposes that training assessment is ultimately judging the "learning and/or the application of the learning". Kirkpatrick (2006, p3) offers that it is to "determine the effectiveness of training", with Hashim (2001) adding that training evaluation is a systematic method of collecting and analysing data about an event. James & Roffe (2000, p12) explain evaluation as "comparing the actual and real with the predicted or promised". The main purpose is to determine the value of something (Bramley, 1991) and, through that, support organisations to make more informed decisions (McGuire, 2011). While these definitions assist in scoping evaluation in this context, finding a unified definition of evaluation is extremely difficult. This begs the question as to whether evaluation is defined by the goal, purpose and audience of the individual assessment and if this should change from appraisal to appraisal.

One of the major problems with training evaluation is that the assorted actors within an organisation are all attempting to assess different factors (Nickols, 2005), for example: the senior manager is seeking information on return on investment; the trainer is looking for affirmation; the trainees are determining the usefulness of a course. These stakeholders, who each operate in different environments, will use their own criteria by which to judge success or failure, and will use the resultant information in different ways (Dionne, 1996). Understanding

these criteria is important for meaningful evaluation (Alliger *et al.*, 1997; Bryson *et al.*, 2011; Lee-Kelley & Blackman, 2011; Powell & Yalcin, 2010). While training results may appear positive they are largely dependent on what is being assessed (Powell & Yalcin, 2010). This infers that it may be prudent for researchers and practitioners alike to focus on what is being evaluated and the reason for assessment, rather than to simply concentrate on the output. This reflects the category of ‘purpose’ within the IMPACT taxonomy, making it significant in both training and evaluation.

One key way of trying to standardise individual evaluations is through defining terms like “improvement”, “efficiency” and even “competence” (Giangreco *et al.*, 2010), which allows a greater clarity and understanding to be attained from results (Stufflebeam, 1998). Setting standards in this manner allows iterative improvement and recognised alignment with widely held principles. However, as pointed out previously, it can be difficult to accommodate all of the different needs of the distinct participants. In response, there is an area of literature that discusses the importance of stakeholder analysis when considering evaluation (Bryson *et al.*, 2011; Guerri & Vinante, 2011; Nickols, 2005; Wearne, 2008; Xiao *et al.*, 2011) but many of the training evaluations models have failed to consider this fully (Guerri & Vinante, 2011).

Dermol & Cater (2013) assert that the training course itself is linked to the individual rather than organisational performance. They contend that it is the subsequent organisational mechanisms, such as supervisor support and opportunity to apply, that enhance the likelihood of training transfer. The authors suggest that assessment of the training event itself is closely dependent on the individual participant, which is contrary to the basis of most evaluation

frameworks. Whilst multi-stakeholder evaluation gives a more holistic approach to the assessment of a training event (Guerci & Vinante, 2011), when investigating an individual's perspective of a training programme (as is the aim of this study) the opposite – a subjective, biased, singular point of view – is precisely what is required.

With evaluation comes the inherent subjectivity and bias that is part of being human. From these arguments a number of concerns emerge for this research. If evaluation is intrinsically subjective, understanding 'how' participants value could be useful in addition to identifying 'what' they value. Examination of this bias and the reasons behind it may provide insights into why participants can have different perspectives and evaluations of the same course.

2.4.2. Project management training evaluation

There is very little literature in the specific area of evaluating project management training events. Some commentators ascribe this to researchers catching up after the recent growth surge of the project management profession and need for associated training (Teplitz, 2001; Tharenou *et al.*, 2007). Lee-Kelley & Blackman (2011) repeat a call originally made by Alliger *et al.* (1997) asserting that there is a dearth of empirical studies into training and project management, and that more research should be conducted into evaluating not just quality but effectiveness of training.

The type of teaching required to produce highly competent project managers is not easily delivered in a classroom setting due to the requirement for practical application (Barron, 2005); and the subsequent assessment of the training is equally as challenging. Assessing acquired knowledge is relatively

straightforward through either academic or professional examinations, however reviewing applied knowledge is not so simple. For example, a project plan could be inspected to identify if it had all the expected components, but its quality would not be known until the project had been delivered. It may be possible to make this assessment as part of an academic course (e.g. MSc in PM) by way of formal project audit of real projects (Barron, 2005), however this may not be something easy to apply to a smaller 4-day training programme.

It is also becoming increasingly common for training evaluation to focus on its contribution to organisational performance rather than just the quality of the delivery and content (Cifalino & Baraldi, 2009). There are suggestions that there are two distinct (but complementary) theoretical approaches to training evaluation: ‘operational’ (aimed at improving training delivery); and, ‘strategic’ (looking at organisational performance improvement). Cifalino & Baraldi (2009) argue that much of the training assessment is still what they term as ‘operational’ and, while a ‘strategic’ approach is becoming increasingly popular in HRD practice (Gibb & Wallace, 2014), they claim that it often fails to produce actual changes in individual behaviour. This raises the concern as to whether either of these approaches are preferential for project management training evaluation, or if an alternative approach is required (West, 2003). The primary arguments from this section are summarised in Table 2.9.

There are three key concerns that emerge from these arguments. First, whether investigating how people view value in training could be useful (in addition to what they value) and, furthermore, whether those reasons for apparent value align to the perceived value themes identified in the project management training literature. Second, whether it is possible, based on these value propositions, to

Table 2.9: Key arguments under the category ‘evaluation’

Argument(s)	Key author(s)
Understanding the purpose is highly important for meaningful evaluation	<i>Alliger et al., 1997</i> <i>Bryson et al., 2011</i> <i>Lee-Kelley & Blackman, 2011</i> <i>Powell & Yalcin, 2010</i>
There are two approaches to training evaluation ‘operational’ and, ‘strategic’ and the use of either may produce differing results	<i>Cifalino & Baraldi, 2009</i>

utilise a single framework regardless of goal, purpose and audience of the evaluation. This leads to the concerns of whether project management training evaluation should be ‘strategic’ or ‘operational’ and whether identifying the human bias could provide insights into why people perceive value within the same course differently. Finally, there is the additional issue of whether there is an optimum approach for evaluating project management training and what should be assessed: training delivery, personal improvement, organisational efficiency or unanticipated side effects.

2.4.3. Summary of evaluation

The existing body of work suggests that the purpose (‘operational’ or ‘strategic’) and the goal (‘what’ is to be assessed) strongly influence the method to be used in conducting the evaluation. This is comparable to the issues raised when examining the perceived value of project management training. A training course that does not match expectations and needs of participants may be viewed as unsuccessful, regardless of the quality. Similarly if the purpose of an evaluation exercise is misaligned with the needs of the audience, then it too could produce potentially negative results.

2.5. Perceived value within evaluation frameworks

Bramley (1991, p4) states that the evaluation of a training event is no more than “someone’s opinion” so consideration individual participant values are highly important. While there are differing perceptions within an assessment context, similarly there is no single methodology that satisfies the requirements of every evaluation. Therefore, identifying the goal of the training evaluation and aligning that to the objective of a specific framework is crucial in determining the appropriate approach (Tasca *et al.*, 2010). The models used during the evaluation of a training programme strongly influence the effectiveness of those evaluations (Bates, 2004), so an understanding of the differing aims is key to the selection process. This section considers the objectives and rationale for development of the most popular training evaluation frameworks. It addresses frameworks and models which (borrowing a term used by Easterby-Smith (1994)) have been loosely labelled here ‘traditional’ as they build on the seminal work of Donald Kirkpatrick; and, latterly, work which has been labelled ‘alternative’ as they do not use the same model as starting point. Table 2.11 (p56)**Error! Reference source not found.** details all of the frameworks discussed and highlights their commonalities and differences with the concerns surrounding perceived participants value that were raised through the IMPACT lens.

2.5.1. *Traditional frameworks*

The underlying objective of each of the evaluation models is to better understand a change in the subject of the evaluation: be it a programme, course, person or organisation. However, each of the frameworks reviewed adopt a different position on the most important elements to focus on and a misalignment between

choice of framework and value proposition of the evaluator could result in misleading results. For example: Kirkpatrick & Kirkpatrick (2006) explore individual impact on organisational performance; Phillips (1996) strongly emphasises financial investment and return; and Warr *et al.* (1970) prefer to highlight evaluation as a political tool for decision-making. Each of these overarching assumptions has a major influence on the ultimate structure, method and outcome of the framework. This sub-section reviews three of the key contributors in this area in approximate chronological order of development. It will then consider criticisms which, as they all have the same fundamental basis, can be levelled at each of these taxonomies. The section then reviews attempts by a further five authors to address these criticisms with frameworks of their own.

One of the most cited authors in the field of training evaluation is Donald Kirkpatrick who first began work on his four levels of evaluation in 1959 and has constantly updated it since; most recently 2006. His work is frequently referenced through contemporary literature (both practitioner publications and scholarly peer-reviewed articles), and it is upon his work that the vast majority of training evaluation frameworks are based (Giangreco *et al.*, 2010; Lee-Kelley & Blackman, 2011; Russ-Eft & Preskill, 2001). His work has drawn criticism from some quarters, however it could be suggested that perhaps the framework has become a victim of its own success (Giangreco *et al.*, 2010): used so universally that it has become an integral part of training evaluation to such an extent that even though some organisations have out-grown the model they still persist in using it.

Kirkpatrick's main driver in the development of his taxonomy in 1959 was the desire to clarify and standardise the meaning of the term 'evaluation' (Kirkpatrick

& Kirkpatrick, 2006); and it could be argued that the longevity of the taxonomy and its continued usage is testament to achieving this original aim. It has become the most popular training evaluation framework in business and academia because it is regarded as being both simple and systematic (Alliger *et al.*, 1997; Bates, 2004; Culpin *et al.*, 2014). The framework has four levels: reaction, learning, behaviour and results which Wagenstein (2006, p5) summarised as evaluation questions for participants to ascertain their perceived values: “Did they like it? Did they learn it? Can they do it? Was it worth it?”. Other authors have added a fifth level to the original taxonomy most notably Hamblin (1974), adding ‘ultimate value’ and Phillips (2003) including ‘return on investment’.

Hamblin (1974) developed a process model which has distinct outcomes to be measured for each level and concluded with ‘ultimate value’ which includes financial impact on both the organisation and wider economy (Russ-Eft & Preskill, 2001; Zinovieff, 2008). This level can include anything that seems pertinent to the evaluator including, but not limited to, personal or economic impact, career prospects or life-changes that have been a result of the training (Sadler-Smith, 2006). Hamblin’s model advanced evaluation frameworks by beginning to consider external, contextual factors, however these are often difficult to tangibly and objectively assess and even harder to tie back to the original subject but do allow consideration of subjective value perceptions.

Phillips (2003) also added a fifth level to cover return on investment. He contends that eventually everything, particularly training, must be justified financially, and his framework allows evaluation of the bottom-line impact of training. He further argues that evaluation should be about more than performance impact – which may increase for a project but the cost in implementing has resulted in negative

return on investment. Similar to Hamblin, the Phillips framework advanced evaluation models with a new perspective on the definitive aim of assessment but, once again, demonstrating connections between these outcomes and the original training inputs is difficult.

Each of these frameworks can be criticised in three major ways: first, the implication of causal links between the levels; second, the importance of progression through the levels; and, third, the lack of contextual significance.

The first major criticism of the Kirkpatrick framework, and hence those who use it as a basis for training evaluation, is the assumption of cause and effect relationships between different levels of learning (Bates, 2004; Giangreco *et al.*, 2010). For example, Kirkpatrick (2006, p27) writes that “if training is going to be effective, it is important that trainees react favorably”. Hamblin’s framework also heavily emphasises the cause-effect relationships between levels (Easterby-Smith, 1994; Sadler-Smith, 2006). However, two meta-analyses have found little evidence to support this assertion (Alliger & Janak, 1989; Alliger *et al.*, 1997). To illustrate this point Alliger & Janak (1989) cite negative correlations: lack of enjoyment (negative level 1) but increased knowledge (positive level 2); or, conversely, the entertaining lecture (positive level 1) that delivers no learning (negative level 2). This is interesting for this study to investigate if participants make any link between enjoyment of a training course and the perceived value.

This leads to the second critique of the frameworks: that the importance of progression through the levels remains unproven. Namely, that the significance of the information increases when moving upwards through the different stages, and that the most useful information comes from the final level of the evaluation

(Alliger & Janak, 1989; Bates, 2004; Sadler-Smith, 2006). This focus on progression is most evident in Phillips' framework (Phillips, 2003). Alliger & Janak (1989) argue that it could be possible to assess both reaction and learning (levels 1 and 2) using the same tool, therefore demonstrating that there is not always a necessity to progress through the levels.

Noe & Schmitt (1986) find no links between reactions and learning, nor do Warr & Bunce (1995), which could suggest removing reactions from an evaluation model completely. However, even Holton (1996, p11), possibly Kirkpatrick's greatest critic, leaves them in his model as "a measure of the learning environment which affects learning behaviour". At its core, this is the same argument about favourable reactions used by Kirkpatrick to justify its inclusion. Warr & Bunce (1995) assert that most researchers have viewed reactions simply as whether or not a trainee enjoyed the event, however they propose sub-dividing reactions into enjoyment, usefulness, and difficulty. The issue becomes that this can have an impact on the trainer, as instructors often equate evaluation as a measure of their performance (Bates, 2004). This has led to the criticism of instructors putting "entertainment over education" (Michalski & Cousins, 2000, p249) in an effort to encourage better feedback from attendees.

Nevertheless, the reaction level of the Kirkpatrick, Hamblin and Phillips' frameworks provide the most common form of training evaluation: the end-of-course evaluation forms (Alliger *et al.*, 1997; Bates, 2004; Cifalino & Baraldi, 2009; Liu *et al.*, 2007; Sugrue & Kim, 2004; Tharenou *et al.*, 2007). Kirkpatrick (2006) discusses that some people cynically call these 'happy sheets' which, he says, is entirely correct as they essentially measure immediate customer satisfaction: however, he maintains that they are not worthless because of this. He

considers that assessing these immediate perceived values provide valuable, tangible data that positive reactions have occurred and the session was considered worthwhile.

While agreeing that this evaluation method has merits, Lee-Kelley & Blackman (2011) caution that individual observations, expectations and reasons for attendance will differ from person to person and affect their subjective perception of the training event. Kirkpatrick (2006) counters that this is precisely one of the reasons for using such a method, as interest and motivation have a substantial impact on retained learning. So, an early indication of a lack of engagement could align with unaltered behaviour in more detailed evaluation methods. The use of Kirkpatrick's Level 1 as the sole means of evaluation should be approached with caution (Galloway, 2005). To focus only on attendees' subjective reactions may cause organisations to needlessly revise training programmes in response to feedback that, at best, is only tenuously linked to the event under scrutiny and, at worst, can be a negative reaction to something in an attendee's personal life (Galloway, 2005).

The final main criticism is that the Kirkpatrick framework is accused of being simplistic and incomplete (Holton, 2005). It is accused of failing to account for the environment (personal or organisational) in which the training was delivered or where the participant works: essentially, the assertion that the training itself is exclusively responsible for achieving (or not) its outcomes (Bates, 2004). Training alone is rarely the sole, and often not even the major, contributing factor in performance improvement (Brinkerhoff, 2006b). Bates (2004) comments that failure to consider these environmental factors can strongly influence decision making and promote the risk of either cancelling useful programmes or continuing

fruitless ones. Hamblin (1974) begins to include influencing factors which are outside the practitioners control but the issue of proving cause and effect remains.

Partially in response to this final criticism of lack of contextual consideration, Warr *et al.* (1970) developed the CIRO framework (Context, Input, Reaction, Outcome). They maintain that to effectively evaluate training a pre- and post-comparison should be made which can demonstrate any change. Their taxonomy considers the environment in which the learning or development will occur and augments Kirkpatrick's levels with two preceding ones: 'context' – assessment of needs; and 'input' – potential resourcing issues (Mavin *et al.*, 2010). Consideration of these two additional elements is the key strength of this approach (Hogan, 2007) as they provide clear links to organisational objectives and, thereby, allow informed decisions to be made (Sadler-Smith, 2006). The 'reaction' level is similar to Kirkpatrick's. Finally 'outcome' incorporates Kirkpatrick's levels 2 through 4 by assessing at three points: immediate; intermediate and ultimate. It also implies that evaluation should be a continuous, cyclical process through ongoing assessment and appraisal (Sadler-Smith, 2006). However, whilst considering context, the CIRO model focuses most heavily on performance improvement and does not measure behavioural change (Tennant *et al.*, 2002).

In 1991 Peter Bramley was driven to write his significant book by what he perceived as a substantial gap between practitioners and researchers, and to address the “necessary, but neglected area of linking research to practice” (Bramley, 1991, pXIII). He developed an approach that appears to be, on the surface at least, a departure from the hierarchical levels of the traditional frameworks. He advocated a two-pronged method of evaluating the training

process (linking with organisational effectiveness and corporate goals) and assessing changes resulting from the training. This included changes in knowledge, skills and attitude of the individual. The model continues to assess how these changes in individual effectiveness influence the team and, ultimately, the organisation before tying back the costs of training with the specific outcomes. So whilst the approach appears innovative, many of the criticisms levelled at the other traditional frameworks could also be made here.

When Easterby-Smith (1994) developed his CAIPO (Context, Administration, Inputs, Process, Outcomes) framework in 1986 he acknowledged apparent parallels with CIRO. He too wanted to put the subject of the evaluation in some sort of context by considering the organisational environment in which participants are operating, and he similarly rejects causal assumptions between levels (Santos & Stuart, 2003). Through these actions his work provides a framework of more independent variables that allow greater consideration of external factors previously lacking in the Kirkpatrick-based models. Finally, he suggests that evaluation can have two distinct objectives: adding to a body of knowledge or contributing feedback. An external practitioner could be expected to have both requirements (for example: knowledge assisting in future marketing, while feedback contributes to continual product improvement). However, as discussed previously externally facilitated training is an area of almost no extant research (Hassi *et al.*, 2011).

In a similar effort to consider context, Dyer (1994, p31) suggests implementing a framework he terms the “Kirkpatrick Mirror”. The model is two-stage where, during training requirement definition, it is recommended to perform the Kirkpatrick levels in reverse to ensure a close link to organisational objectives.

Subsequently, on completion of the training, it is advised to follow the levels in a traditional order to evaluate the course. This appears to replicate the principles behind the work of Warr *et al.* (1970) and Easterby-Smith (1994) but without the theoretical underpinning. Furthermore, there is little evidence that this has been followed either in research or practice (Mavin *et al.*, 2010).

More recently, Passmore & Velez (2012) proposed a new evaluation model that can be effectively used by both researchers and practitioners. It is claimed to be simple enough to apply in the workplace but rigorous enough to stand up academically; thereby beginning to bridge the science-practice divide as requested by several authors including Aguinis *et al.* (2011), Giangreco *et al.* (2010), McCreery (2003) and Roth *et al.* (2014). Named SOAP-M, it proposes 5 levels: Self (based on self-evaluation of the training); Other (supervisor evaluation of the trainee); Achievements (evidence of improved performance); Potential (use of psychometrics to assess individual's developing cognitive or emotional skills); Meta-analysis (for use in research either organisationally, cross-sector or in academic research). Again, as this takes the form of a basic evaluation taxonomy, the traditional criticisms of hierarchy and causality can be levelled. The authors do acknowledge that the further away one moves from a training intervention, the more difficult it becomes to evidence causal relationships and the potential for contamination by outside factors increases. At time of writing, there has been no response from the academic community to this proposed framework so, while it is an innovative take on the taxonomy approach, more research is required to progress and evidence it.

To summarise this section on traditional models, they all have the same basis of systematic, procedural levels which are to be treated either as taxonomies or true

models. As such similar strengths and weaknesses can be levelled at each in the ways they attempt to objectify perceived participant values. To counter this some authors developed innovative models aimed at addressing evaluation in different ways.

2.5.2. Alternative frameworks

The criticisms levelled at Kirkpatrick and the traditional frameworks have spawned many alternative models for evaluation. This section discusses the two of these models, developed by Holton (1996) and Brinkerhoff (2003), that claim to address most closely the concerns identified in the previous section. It concludes by suggesting which framework might be most suitable for the evaluation of project management training.

Of all the critics of Kirkpatrick and the traditional evaluation approaches, Holton (1996) is the most virulent. He accuses the models of being fundamentally flawed and under-researched, citing the criticisms of assumptions about causal relationships, implied hierarchy and over-simplification of the models. He strongly condemns Kirkpatrick in particular for not meeting any of the criteria required of a model or theory, to which Kirkpatrick (2006) responded that there was no claim that his framework was any more than a simple taxonomy, hence the name The Four Levels.

Holton (1996) proposes a model that focuses on performance rather than behaviour. He also includes primary (for example, ability, motivation and environment) and secondary influencing variables (such as opportunity to use) which will have an impact on training, transfer and effectiveness (Passmore & Velez, 2012). Assessing individual performance improvement leads to evaluating

the impact on organisational goals and, hence, a positive result for the training. Despite Holton's hostility to Kirkpatrick, his influencing factors bear close resemblance to Kirkpatrick's Level 2, 3 and 4 (Russ-Eft & Preskill, 2001). The main strength of this model is the theoretical robustness with which it was developed, but that is also its weakest point – it is currently only theory. The model is only hypothetical as the mechanisms do not currently exist to put it into practice (this is acknowledged in his publications), however Holton also sets out a research agenda to further his idea. The factors discussed by Holton and his proposal appear rigorous, however to current practitioners the model needs to be refined with tools capable of delivering, not just hypothesising on, the model. Another alternative approach, and one that is actionable, is the Success Case Method proposed by Brinkerhoff (2003).

Brinkerhoff (2003, pXI) accuses other methods of being “too elaborate, too complex, too costly and take too much time” to implement, so proposes a very simple solution in his Success Case Method. The model involves identifying training participants through surveys who have been either very successful or unsuccessful post-course and interviewing, documenting and analysing their stories. If this is possible, and worthwhile results can be shown, then he claims, it is demonstration that the training worked. If no-one can be found who can testify to this then it shows that training has not been valuable.

Even though this method appears to be very different to the traditional ones, in his interviews Brinkerhoff is essentially asking the same Kirkpatrick questions that were summarised by Wagenstein (2006), in this case: “Did they learn anything? Can they use it? Was it worth it?” It is focused on interrogating participant perceptions of value. The major difference comes that his model also focuses on

evidencing the answers. It is not sufficient simply to state improvement there must be tangible, measurable effects to back this up.

There are several obvious criticisms levelled at this approach, with the main being the inherent bias of only reviewing a select few successful cases and the bias of trainees subjectively identifying their critical success factors (Passmore & Velez, 2012). However, Brinkerhoff embraces the bias by using purposive rather than random sampling, with the rationale being that more can be learnt from the great triumphs or abject failures than the averages. The method could also be criticised for being unable to assess the success of a whole programme based on such a small, select sample size. This is addressed, quite pragmatically, with agreement but also with the statement that that is not the purpose of the Success Case Method. What it claims to identify is what a programme does best and where it struggles. If no one can be found to interview then that is evidence in itself that the programme is not working and, therefore, investing additional time and expenditure would be wasteful.

While the Success Case Method delivers a more holistic approach, it remains objective-driven in the sense that the semi-structured interviews are still about proving the training links to tangible business results or strategy. There can be unforeseen consequences that come from training that would not necessarily become apparent by concentrating solely on objectives. Scriven (1991) argues that focusing on goals and objectives is important in assessing a proposal, but not if assessing a product, and suggests taking a goal-free, summative approach to evaluation. Scriven concludes that this approach highlights the actual effects rather than the anticipated ones. This can be criticised in a similar way to Brinkerhoff, that a lack of focus may only achieve partial data collection and that

it is extremely difficult for any evaluator not to infer objectives and take a truly grounded approach. Bramley (1991, p97) sees merit in the idea of focusing on not only whether goals were achieved but whether they were actually worth achieving and suggests that goal-free evaluation could “complement rather than challenge” other approaches.

Table 2.10: Key arguments under the category ‘evaluation frameworks’

Argument(s)	Key author(s)
Understanding the influences of contextual variables (for example, personality or motivation) cannot be easily achieved using a traditional evaluation framework	<i>Galloway, 2005</i> <i>Holton, 1996, 2005</i> <i>Lee-Kelley & Blackman, 2011</i>
Traditional evaluation frameworks: make an assumption of cause and effect; focus on increasing importance through the levels; and, are overly simplistic.	<i>Alliger & Janak, 1989</i> <i>Bates, 2004</i> <i>Brinkerhoff, 2006a</i> <i>Giangreco et al., 2010</i> <i>Holton, 2005</i>

The main arguments to emerge from the discussion (Table 2.10) on evaluation frameworks can be summarised as: the major criticisms around traditional frameworks; and, whether or not influencing variables should be considered as part of the evaluation framework. If the purpose is purely organisational level evaluation then perhaps this is not relevant. However, if investigating individual opinions, then these factors may exert a strong influence over the outcome. This argument leads to the concerns that, if evaluating individual perceptions, a less rigid and more qualitative approach may be more suitable. This concern raises the question of whether Brinkerhoff’s Success Case Method (2003) could be used as a basis for a new project management training evaluation framework and, for this research, whether the IMPACT taxonomy could be used as a lens for interrogating participant perceptions of value through Brinkerhoff’s model.

2.5.3. Summary of evaluation frameworks

The discussion from this section has been condensed in **Error! Reference source not found.** Of all the different frameworks, a goal-free approach similar to Brinkerhoff's Success Case Method (2003) might be most flexible in dealing with the unique and subjective nature of project management training assessment. However, even within this framework there is a relatively rigid structure to be adhered to. In order to more fully investigate the impact that a training intervention makes on an individual's life, and hence their perceived value, none of the existing frameworks is entirely satisfactory. This presents an opportunity to build on the existing approaches to identify a better means to assess these subjective elements.

2.6. Conclusion to literature review

This literature review has established that training evaluation by an attendee is inherently subjective. It also highlights the different arguments around what constitutes 'value' in a project management training context. This section combines these two key areas to address the notion of perceived value within a project management training programme. It begins by providing a synthesis which considers the value component within a project management context and concludes by identifying the gap in the literature through a problem statement which develop the research questions.

Table 2.11: Summary of key evaluation approaches

	Kirkpatrick (1959)	Warr <i>et al.</i> (1970)	Hamblin (1974)	Bramley (1991)	Easterby-Smith (1994)
Primary objective	Assessing individual impact of training on organisational performance.	Providing political justification of training function .	Demonstrating causal links between training intervention and organisational financial performance and/or personal improvement.	Evaluating training effectiveness by assessing the process and the changes.	Providing choices for evaluation rather than a strict model and consider evaluation of ‘new’ types of education such as action-learning
Approach	4 level taxonomy	4 level taxonomy (level 4 split to 3 sub-areas)	5 level model	2 part process (assess training process and resultant changes)	5 level taxonomy
Stages	Reaction Learning Behaviour Results	Context Input Reaction Outcome	Reaction Learning Job Behaviour Organisation Ultimate Value	Changes in Knowledge Changes in Skill Changes in Attitude	Context Administration Inputs Process Outcomes
Model type	Traditional	Traditional	Traditional	Traditional	Traditional
Level of analysis	Organisational level of analysis (training programme assessment).	Organisational level of analysis (training design and development).	Organisational level of analysis (primarily, although <i>Ultimate Value</i> can extend to the individual).	Organisational level of analysis (training process and participant impact).	Organisational level of analysis (“things” (p46) – e.g. events, courses, workshops etc.).
Contribution	Initial basic approach upon which many other frameworks are built.	Consideration of context in which training is determined, developed and delivered.	Split Kirkpatrick’s <i>Results</i> into two: organisational efficiency and financial impact. Also, considers influencing factors outside practitioners control.	Goal-based approach and linking evaluation to the whole training lifecycle (pre-, during- and post-)	Provides greater flexibility in giving options to subjects and methods of implementation.
Key drivers in development	Desire for clarification and standard definition of <i>evaluation</i> in a training context.	Consideration of the stages before <i>Reaction</i> .	Driven by idea that each level impacts on succeeding one thereby allowing objectives to be defined as measures for each level.	Desire to bridge the gap between academic researchers and training and evaluation practitioners.	Uses basis of existing practical models, develop a framework that reflected updates in evaluation theory during the free market economy ideas of the 1980s
Areas of alignment with IMPACT taxonomy	Permits subjective evaluation (esp. levels 1 & 2).	Considers pre-training influencing factors.	<i>Ultimate Value</i> can consider personal or career impact.	Considers the holistic process of training as well as resultant change. Considers attitudinal change.	Considers pre-training influencing factors
Limitations identified using IMPACT taxonomy	Post-training only. No focus on training objectives. Subjective elements do not consider external factors (understanding reasons for subjectivity). Implies hierarchy and links between levels.	Does not measure behavioural change. Combines all impact of training on business into one level, <i>Outcome</i> .	Difficult to conclude cause-effect relationships between levels. Evaluating <i>Ultimate Value</i> that goes beyond organisational boundaries often difficult in financial terms.	Links back to specified desired outcomes and if these are not met (but others are) evaluation of success is poor.	Aimed specifically at training courses rather than generic management development.
Consideration of perceived value	Subjective evaluation permitted at levels 1 & 2 but only in the context of the training itself, not potential wider application or other perceived value.	Pre- and post-training comparison and links to organisational objectives so examines evidenced change rather than perceived value.	<i>Ultimate Value</i> can consider economic, personal or career impact but need to be evidenced so not subjective or perceived.	Examining changes in knowledge, skill and attitude could where participants perceive value but links back to goals so unexpected outcomes may be missed.	Allows independent evaluation choices and provides a structure for evaluation. Could be used in conjunction with another method (e.g. Brinkerhoff) to examine value.

Table 2.11 (continued): Summary of key evaluation approaches (continued)

	Phillips (1996)	Holton (1996)	Brinkerhoff (2003)	Passmore & Velez (2012)
Primary objective	Demonstrating monetary return in training within organisation.	Assessing HRD interventions considering influences factors.	Improving training programme (or system) by assessing usage of training within the organisation.	Increasing the value and effect of training.
Approach	5 level taxonomy	3 level model + influencing factors	2 part process	5 level taxonomy
Stages	Reaction Learning Application Business Impact ROI	Learning Individual Performance Organisational Results + Motivation, Environmental & Ability/Enabling Elements	Identify Success Cases Interview Success Cases	Self Others Achievements Potential Meta-Analysis
Model type	Traditional	Alternative	Alternative	Traditional
Level of analysis	Organisational level of analysis (financial performance).	Organisational level of analysis (the focus on 'individual performance' is closely tied to organisational results).	Individual and organisational level of analysis.	Individual and organisational level of analysis.
Contribution	Considers more than performance impact: e.g. project performance might increase but the amount spent in doing so results in negative ROI.	Moves away from general taxonomies offering a "true model" (p19) incorporating personal motivation, attitudes and characteristics as influencing factors.	Uses an interview approach to attempt to uncover unexpected effects of the training often hidden in traditional frameworks.	A practical model that introduces new methods such as psychometric testing in addition to self- and supervisory-assessment.
Key drivers in development	Desire to financially justify training investment in a manner that appeals to senior management (e.g. ROI).	Contention that Kirkpatrick is fundamentally flawed and a new, researchable model is required.	Attempts to address the wider impact of training within an organisation and evaluates if training satisfies higher level corporate strategy.	Address weaknesses of other traditional approaches but utilise their strengths to produce framework for both researchers and practitioners.
Areas of alignment with IMPACT taxonomy	Permits subjective evaluation (esp. levels 1 & 2).	Considers individual and organisational influencing factors.	Allows exploration of subjective bias.	Considers participant characteristics.
Limitations identified using IMPACT taxonomy	Hard to prove causal links between ROI and training. Takes a long time to fully implement.	Tools do not exist to practically apply.	Is not comprehensive as only reviews successful (or unsuccessful) cases.	Immature. Untested.
Consideration of perceived value	L1-4 similar to Kirkpatrick. L5 (ROI) focused on demonstrating financial link between training and outcome – not subjective or perceived.	Focuses on organisational results rather than individual perceived value. Looks for evidence in the assessment.	Does not attempt to isolate effect of training from other elements so can consider perceived value but further looks to evidence this objectively.	Focuses on the improving the training itself rather than the perceived value by participants.

2.6.1. Perceived value in the evaluation of project management training

Many of the considerations when discussing perceived value in a project management context centre around the debate that runs through many publications in the field of project management training: the differing values of practitioner-centric or scholar-centric. This has appeared with regularity throughout each of the sub-sections in this chapter: when discussing the best methods of training, the mode of facilitation, the content of a programme, the purpose of the training, and even in the discussion around evaluation. This tension raises interesting issues for this research as it will be focusing on practitioner-led events being run in a university setting. It also prompts the question as to whether participants have a preference with regard to any of these differences and how they subjectively perceive value in within the context of project management training.

To measure value of project management training courses organisations typically use an approach based on one of the traditional evaluation frameworks. These approaches normally have the Kirkpatrick 4-Levels taxonomy (Kirkpatrick & Kirkpatrick, 2006) as their root. Although the most popular evaluation framework, many argue that the Kirkpatrick model is missing a crucial element by ignoring the work and social environment that the participant lives in (Bates, 2004; Galloway, 2005; Lee-Kelley & Blackman, 2011). They contend that this has a large bearing on the subjective valuation process of any training event, namely the perceived participant value. Holton (2005) proposes his theoretical model to address this but fails to provide the tools with which to implement it. The closest existing framework used to understand subjective opinion in evaluation, thereby beginning to address the earlier question of how individuals perceive value in project management training, is Brinkerhoff's (2003) Success Case Method. All of

the current frameworks attempt to address either why (or why not) a training intervention has been successful, how to improve a programme, what has changed organisationally since a course or the factors that influence assessment. While some may skirt around the edges, none of them look specifically at how participants' value project management training nor place the individual at the centre of the evaluation. The evidence gathered in the literature review indicates that investigating holistically what it is that makes people more receptive to this type training would be a step in bridging the practitioner versus scholar debate with regards to training in this area. It would give understanding not of how the organisation tangibly benefits from training (typically the practitioner-centric argument) or the most theoretically-robust form of education (the most common scholar-centric contention), but it would investigate how the participants who attend the courses and have to subsequently implement the learning perceive value in a training programme. In essence, focusing on the people who will make the difference.

2.6.2. Problem statement and research questions

At the heart of the issue of evaluating from an individual perspective is understanding what participants perceive to be valuable within a project management training context. Furthermore, if the desire is to evaluate training from this perspective then it is important to know which elements indicate whether these value propositions are being satisfied.

The issue of determining what to evaluate has been discussed as problematic in the literature as different stakeholders require differing outputs (Nickols, 2005) and is similarly contentious in the project management training literature with

authors disagreeing on what constitutes a good training course (Aguinis *et al.*, 2011; Crawford *et al.*, 2006; Edmonds, 2010; McCreery, 2003; McDonald, 2010; Ojiako *et al.*, 2011; Pant & Baroudi, 2008; Thomas & Mengel, 2008). Existing evaluation methodologies are attempting to assess training generically using prescribed approaches with suggestions as to what makes a good training course are stated from the personal perspective of the author. There is a clear and distinct gap in the existing literature pertaining to the value that participants perceive to have gained from project management training and, as a result, no method to measure, assess or understand that value.

The unique nature of projects and the difficulties in assessing their success, or even the participants' direct contribution to their success, suggests that an alternative method of evaluation could be needed (West, 2003). Project management itself is a highly quantitative environment as numbers rule everything from estimation, to contingency, to risk assessment. However, rather than citing the traditional 'scope v cost v time' criteria (Atkinson, 1999) for success, adopting a more qualitative approach could be equally effective in understanding participants' perceptions of value. Although little literature exists on the subject, this chapter has identified the same difficulties for evaluating project management training. Taking into account personal aspects that were identified – such as their demographic situation, prior experience and personal attitude (whilst also considering the environment in which they work and will subsequently apply the learning) – could lead to a more holistic evaluation of project management training in this environment. Rather than investigating evaluation only from an organisational context, it may be beneficial to explore whether there are any elements that are particularly relevant from an individual

perspective and should be worthy of consideration in any project management training evaluation framework. It is from this position that the first research question is developed:

RQ1. How do participants perceive value in the context of project management training?

This question leads to the obvious extension of asking what indicates whether a participant has found value in project management training. There is little in any of the currently popular methods that directly address why a participant finds value in a particular course. Many surveys ask “what have you found useful” and “what will apply” but the question “why is that” is rarely asked. Furthermore, there may be unexpected effects that are exhibited post-training that would not be captured by a traditional evaluation method of structured questionnaire, survey or interview. This would in turn aid course development by giving a better understanding of a participant’s context. From this consideration the second research question emerged:

RQ2. What are the key indicators for the identification of value in a participant’s evaluation of project management training?

Furthermore, referring the findings of the study back to this chapter it may be possible to ascertain whether or not these indicators are aligned with concerns that exist within the literature.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

This chapter provides a detailed account of the methodology developed for this study and considers its key elements in light of the research objectives set out in Chapter 1 (section 1.3, p6). The research philosophy is discussed and an argument presented to support the adoption of an interpretivist position. This leads to a discussion about the use of conversational interviews and the influence that exploratory qualitative research has on this study, before considering sampling techniques and data analysis. This is followed by a section discussing the insider/outsider debate and the role of the training instructor also being the researcher in this study. The chapter finishes by detailing the strengths and limitations of the study.

3.2. Research philosophy

This study adopts a research position rooted in interpretivism which primarily focuses on meaningful social interaction (Bryman & Bell, 2003). More precisely, it concentrates on the inter-subjective creation of meaning-in-context (Gill & Johnson, 2002) and how this meaning is used to frame purposeful social action (Denzin & Lincoln, 2011). In this study, this position is adopted in an attempt to gain an understanding of differing human perceptions in training evaluation and to be sensitive to the reasons for this diversity. The following section describes and justifies this position within the context of evaluating project management training.

3.2.1. Ontological assumptions

Ontology deals with the nature of reality (Saunders *et al.*, 2012). An interpretivist research position promotes a view of reality as one that is socially constructed and dependent on human cognitions, assumptions, experiences, discourses and actions (Denzin & Lincoln, 2011). This leads to creation of particular meanings around situations which, in turn, serve to legitimate certain behaviours. These assumptions are counter to another main position, positivism, which is characterised by the supposition of scientific objectivity: that there is a clear separation of factual, evidenced-base reality and subjective, value-laden judgements (Benton & Craib, 2011). Besag (1986) contends that the nature of educational research does not traditionally sit comfortably with the positivist belief that phenomena exist independently of human interaction (Saunders *et al.*, 2012), as each participant brings their own perspectives and value commitments with them. Furthermore, the literature review raised concerns around the need for sensitivity when investigating participants' perceived values of training events. This research is based on the assumption that those involved in the study will have differing memories of the same event (Benton & Craib, 2011), which will be important for assessing contrasting value perceptions. Research into the assessment of value in something as specific as a training intervention (and particularly individual perceptions of a training event) cannot reasonably be considered to be external to the social actors (i.e. the course attendees) who interpret their own views of reality. Adopting an interpretivist position may provide an alternative means of evaluating project management training that is different to other existing frameworks.

3.2.2. Epistemological objectives

Epistemology defines what is acceptable knowledge within a research project (Saunders *et al.*, 2012). In this research, knowledge development is driven by a concern to develop context-sensitive, meaning-rich and experiential accounts of trainees' perceptions of project management training. For investigating perceived values within training evaluation, an approach embedded in interpretivism allows greater scrutiny of these individual perceptions, feelings and thoughts. So despite positivism both underpinning the Guide to the Project Management Body of Knowledge (Smyth & Morris, 2007) and being the principal project management research paradigm (Biedenbach & Müller, 2011; Bredillet, 2008), a positivist frame of reference is unsuitable for this research. Positivism would attempt to find proofs and develop theories much in the same way as a scientist might (Gill & Johnson, 2002), however it would not account for an individuals' nuances, personality and value commitments which are key to this study (Goldkuhl, 2011). Another reason for the rejection of positivism in this research is that it requires duality, in this case complete separation, between the object and the subject of the research (Llewellyn, 2007). This is not possible in this study as, firstly, the researcher is inherently involved with the subject being also the training instructor but also this existing relationship will influence the participants' responses as well as the act of interpretation of the findings.

3.2.3. Axiological concerns

Axiology centres on judgements about value and what is worth researching (McGregor & Murnane, 2010). These are the values that underpin all the decision making of the researcher in regards to the project and, as such, strongly influence

both the process and the output of the research (Saunders *et al.*, 2012). The rationale behind the research was detailed in Chapter 1 (section 1.2, p5) with consideration given to the researcher's role as an insider discussed in section 3.4.3 (p76). Three other considerations are viewed as having major axiological significance to the researcher: methodological rigour; recognition of subjectivity; and, practical interest in enhancing the value of project management training evaluation. Anecdotally and experientially there is a belief by the researcher that most project management training evaluation provides little more than a reactionary snapshot of participant opinion at the end of a course. There is evidence in the literature that supports this view and also suggests that, although frameworks exist, most courses are not fully evaluated due to the time, cost and complexity involved. A reason for beginning this research was to attempt to identify if there is a simpler, cheaper method of evaluating project management training which stands up to academic scrutiny. This informs the second significant influencing factor which was that understanding, rather than explaining, participant reactions and perceptions of project management training may be more useful in improving courses and attendee experience than numerical averages. This notion fuels the desire for focus on the subjectivity of evaluation and drives the adoption of an interpretivist research position. Finally, there is a practical interest in enhancing the value of project management training evaluation from a practitioner perspective, whereby the output of the research can be applied in a professional environment to aid deeper understanding of participants' perceptions of value. Although value judgements inevitably influence the process, decisions and conclusions in this thesis, up front exposure of these axiological

considerations and continued reflection throughout, helps to mitigate their impact on the research.

3.2.4. Methodological approach

This research adopts a dominant qualitative methodological approach to the research. This aligns with the ontological assumptions of a socially-constructed reality and with the epistemological objectives of developing knowledge through deep sensitivity to individual participants perceptions of value. Saunders *et al.*, (2012) argue that an interpretivist approach is often very fitting for management research as it focuses on interpretation of human perception and meaning (Biedenbach & Müller, 2011) which, in this case, forms the basis of a training course. In the review of the literature it was noted that the vast majority of studies into training evaluation and training influencing factors have been quantitative (Burke & Hutchins, 2007) and that more qualitative enquiry was encouraged (Cassell & Symon, 2006). This decision to adopt a qualitative approach also prompted an interest in using some key features of conversational interviews (memory, voice and reflection) as a means of developing deeper and richer individualistic understanding. Alliger & Janak (1989) pose the question as to whether a more inductive approach would be better for unearthing subjective values in assessments. Critics of this approach cite that any conclusions drawn from these type of studies are highly subjective, value-laden and strongly influenced by the views of the researcher (Hill & Wright, 2001). However, given the nature of this study and the distinctive researcher-researched relationship, recognition of subjectivity is to be embraced rather than nullified. Adopting this highly qualitative methodological approach reaffirms the interpretivist research position. The literature shows this is counter to most existing evaluation

frameworks thus offering a distinctive contribution to both practice and knowledge.

3.3. Research method

Adopting an interpretivist position dictates that the research should be designed in a manner that will allow deep investigation of individual perceptions, thoughts and feelings. The technique employed to achieve this is the method (Bryman, 2008), and the decision on which method to use is key to the success of the study. Being subjective, the method used within an interpretivist paradigm is often qualitative (Collis & Hussey, 2009). In this study, conversational interviews are used as the means of data collection. Two separate interviews were conducted with each participant in an attempt to provide a more longitudinal element to the research. The first set of interviews were transcribed, coded and analysed, before their findings informed the agenda for the second round of discussions. This section describes this process and considerations in greater detail, and discusses the major elements of exploratory qualitative research that informed the approach.

Training evaluation is about assessing whether learning has occurred, in whatever guise that may come: increased knowledge, applied technique, greater confidence or enhanced performance. Authors recognise this ‘learning’ as being central to all the evaluation frameworks described in the literature review in Chapter 2. Rae & Carswell (2000, p221) contend that learning is the process of “making meaning from experience”. Using in-depth, conversational interviews with participants achieves this completeness of evaluation from an individual perspective, without resorting to traditional methodologies. The term ‘conversational interview’ is used in recognition that the process, and therefore data gathered, is shaped by both the

interviewer and interviewee (Davies, 2011). Rather than simply leading a subject through a set of questions, the interview is a “co-created product” (Davies, 2011, p476) produced from the interaction between the two parties. Considering both researcher and subject as peers in the process also helps to equalise any issues with the power dynamics of the study (Frisch, 1990).

Conversational interviews permitted a great richness of understanding of the participant rather than simply giving snapshots of different stages of this process as happens with the majority of models. The key elements of exploratory qualitative research that influence the method, analysis and presentation of findings are gained from this interview approach. They are memory, voice and reflection which allow contextualisation of the learning outcomes, giving a fuller form of evaluation. One of the outcomes of the study is to test this as a method of evaluation, to assess its efficacy and to appraise whether it is suitable for training evaluation. The following sub-section discusses these main influences.

3.3.1. Conversational interviews in exploratory qualitative research

This research seeks to understand individual value assessments of project management training. These perceptions are based, in part at least, on participants own unique experiences. The three factors present within exploratory conversational interviews that will influence this research are examined here. These are the concepts of memory, voice and reflection and the section is subdivided using these elements.

The competencies required to conduct such research are not solely “the preserve of academic” (Perks & Thomson, 2006, pIX) as the skills required (essentially, listening) are available to the majority of the population. It is precisely this

obscure yet flexible nature that lends certain aspects of itself to this emergent study: exploratory conversations leading to more structured discussions, in turn informing recommendations and conclusions. In essence, this method provides fewer limitations than others and permits a broader range for the study (Thompson, 2000).

Considering memory within an interview allows the opportunity to examine how people remember (Allison, 2006), which aligns well with investigating the elements on which people place most value following a training event. When examining the literature on memory in this context, one recurring theme keeps emerging: that memory is primarily about making sense of the past (McKenzie, 2005; Popular Memory Group, 2006; Thompson, 2000; Thomson, 2006). Interviews are a method of allowing participants to reflect on past events through the lens of the present, however it also draws one of the major criticisms of interviews, namely that memory is fallible (Guan, 2008; Thomson, 2007). Memory is inherently subjective as it concerns our personal perceptions and remembrances which are also affected by norms, culture and public opinion (Popular Memory Group, 2006). Thompson (2000) contends that this is not only the case in narrative interviews. He asserts that notes, minutes and documents are similarly subjective and affected by the bias of the author. Guan (2008) goes even further and claims that there is no inherent difference between written documents and an interview in terms of being incomplete, incorrect or self-serving: and the advantage of the latter is that it allows further examination of erroneous facts.

Memory is shaped by context (Perks & Thomson, 2006) which is precisely what this study is attempting to investigate - which features influence how individuals value training - therefore context is a key component. People “accept, reject or

select” different memories in order to make sense of their own lives and experiences (Thompson, 2009, p2). Lummis (2006) suggests that such evidence is criticised because people cannot distinguish between their current perception and those they held in the past, to which he asserts there is no simple remedy. However, as Thomson (2006) contends, if the aim is to investigate how past events have impacted on lives today (which is one of the objectives of this study) then this source is essential to help understand the interactions between past and present. Guan (2008) remarks that interviews should not be viewed as being similar to a retrieving a file from peoples’ heads that is unchanged over time, but as a work in progress that is subject to alteration. Allison (2006) quotes Linde as describing the ‘creation of coherence’ as a method of making sense of personal experiences. It involves enhancing and diminishing different memories and adjusting them to conform with presumptions and societal norms. The same principle of sense-making applies to investigating personal perceptions of value in this study. This, however, raises criticism as to what extent the interviews and participants typify a particular event. This is may not be such a concern if the focus is a specific research project (Lummis, 2006) and the participants are specially selected. Nor is this study intended to be a grand comparison from which to draw generalised conclusions.

This thesis considers the notion of memory as a method of attempting to understand what individuals identify as valuable throughout the training courses. Attention is paid to investigating what participants remember and the strength of the recall may indicate areas of particular importance.

The second influencing factor of exploratory qualitative research and conversational interviews is consideration of voice. Very little has been published

from a strongly interpretative, narrative position pertaining to research in a corporate environment or from a managerial perspective. Perks (2010) tries to explain this phenomenon by describing that much interpretive management research in the UK as taking a ‘bottom-up’ approach – looking at past events not solely from the perspective of the senior management but focusing more intently on understanding the workforce (Thomson, 2007). This, in part, explains the lack of highly qualitative literature pertaining to business studies in the UK. The irony of the failure to approach research into subjects such as project management from a highly qualitative perspective is not lost on Perks (2010, p222) who states that the philosophical commitments of interpretivist researchers have rendered such an approach

“ideologically averse to documenting important sectors of society that drive the national economy and impact on millions of people. In our determination to redress the balance and give voices to the voiceless, we have overlooked many others whose stories and experiences might now equally be lost.”

This research project may appear disconnected from the common interpretivist notion of giving ‘voice’ to people who had previously been marginalised or ignored (Perks & Thomson, 2006). However, the idea of learning, changing and evolving in response to these testimonies remains. This study is concerned with learning about course participants, training encounters and aspects of their experience that impact on their valuation of learning. Rather than political or social change being exacted as a result of the research, it is an alteration in the attitude and approach of instructors, course developers and training commissioners to satisfy their key stakeholders.

A further contribution of exploratory qualitative research to this study is the reflection that can be gained through taking this approach to interviewing. One of the appealing aspects for this study is the flexibility it permits in interviewing style and analysis methods. Many interviews, even in-depth interviews, conducted in a qualitative research environment focus more readily on the here-and-now – not dismissing life experience but limiting the scope of the study to a certain period (for example, experience working within a particular organisation) (Thompson, 2000). Taking a more exploratory method means the researcher can choose precisely who they wish to interview and the questions they wish to ask which give a “multiplicity of standpoints to be recreated” (Thompson, 2000, p6). In this research it enables investigation beyond the ‘immediate snapshot’ and get a feeling for the person themselves rather than simply a person within a particular situation.

The approach allows the depth expected from a longitudinal study without the need to wait for the time to elapse between multiple interventions. Effectively, applying a retrospective aspect to achieve a longitudinal perspective that would not otherwise be possible within the doctoral timescale: reflecting post-event on the changes brought about by the training. It permits a detailed understanding of the application of the learning, but is also able to balance that against a participant’s prior knowledge, experience, job role and life circumstance. This approach also encourages exploration of changing or strengthening memories: how events subsequent to the training have reinforced recall of certain aspects of the course. Whereas traditional qualitative research might offer a social perspective, this method allows focus on providing social meaning (Thompson, 2000).

3.4. Data collection

The primary mode of data gathering were two in-depth, loosely-structured interviews which are described in this thesis as ‘conversational’. The rationale was to contextualise the training against the background of the participants’ prior experience and education. This was coded using the IMPACT taxonomy developed from the literature to provide a holistic view of ‘what’ and ‘why’ participants value certain elements. This section discusses the mechanism behind conducting these interviews, before considering the insider/outsider debate relevant to this research.

The data collection was performed using two in-depth interviews of 13 participant with a time lapse of 6 to 12 months in between. The first series of interviews were almost exploratory (Thompson, 2000) which permitted variation in the order of topics, was highly conversational, and provided a greater opportunity to use open-ended questions (Saunders *et al.*, 2012). These were conducted and the subsequent analysis of all the recordings and transcriptions then informed the focus of the second interviews which were performed between several months later. The purpose behind using analysis of all the interviews to influence the second round is to allow more focused analysis of major similarities or differences, and it also allowed modification of questions during the interview process (Alpert & Hartshorne, 2013). The interviews were recorded electronically.

Only around 10% of qualitative project management research papers investigated in Biedenbach & Müller's (2011) meta-analysis used interviews as a method, and none of them studied project management training. An extensive search of the literature has identified only one existing framework that evaluates training using

in-depth interviews, Brinkerhoff (2003), however this is focused on ultimately recognising organisational benefit rather than impact on the individual. Previous and current research into training evaluation has focused on ‘who’, ‘what’ and ‘when’, whereas this approach would allow a deep investigation into the ‘why’ and ‘how’. Additionally, this method fits comfortably with an interpretivist research position.

A pilot study was conducted to assess the feasibility of this approach. In the pilot, interviews were performed with three participants to test the method, structure and analysis. These were the first interviews of the two-interview approach, to allow the use of the same participants in the second round of discussion for the main study. The pilot interviews were performed using an early and incomplete version of the IMPACT taxonomy as a guide. The output of the pilot highlighted some areas of the literature that required further investigation (primarily around confidence, self-efficacy and instructor credibility) and allowed IMPACT to be developed further for the main study. However, this discovery provided confirmation that this method allowed investigation into unanticipated effects of the training which is missing from existing evaluation frameworks. This process was successful and allowed the researcher to become more practised in interviewing. Other than minor changes to the interview guide that emerged through analysis of the data using the IMPACT lens, the method was not substantially altered.

3.4.1. Phase 1 interview

The style of the first conversational interview was loosely structured, however using a generic interview outline allowed a degree of comparison between

interviews and cross-checking for accuracy (Guan, 2008; Thompson, 2000). The interview guide (included in Appendix IV) was used to steer the researcher during the first interview process (Alsudiri *et al.*, 2013). While not every concern was explicitly questioned in each interview, the guide was referred to by the interviewer throughout to ensure that all pertinent areas were covered during the interview. Participants were given little advanced warning of the subject of the interview other than that it would be questioning their experiences of the training courses. This was done in an attempt to allow the interview to flow like a natural conversation and, in doing so, encourage more natural, honest and spontaneous points of view (Qu & Dumay, 2011). This approach has been shown to enhance the experience and quality of the interview for both researcher and participant (Bryman & Cassell, 2006). Course materials (for example, hand-outs and Post-It notes) were placed on the same table as the microphone, but not referred to unless prompted, as it has been shown that visual memory aids such as these can help to trigger recollections of past events (Slim *et al.*, 2006).

3.4.2. Phase 2 interview

The second interview had greater structure as it was designed to act as a confirmatory discussion of the researcher's interpretation of the findings of the first interview. These interviews were conducted between 6 to 12 months after the first set. The dual interview method begins to address the issue of validity, as the second interview allowed more focused interrogation of specific areas (Saunders *et al.*, 2012). This permits cross-referencing between interviews and identification of repetition or inconsistencies. As such, it was conducted by telephone and substantially shorter in length (typically 10 minutes). It followed the schedule

detailed in Appendix V. The major criticism of in-depth interviews surrounds data quality (Saunders *et al.*, 2012) which is addressed in section 0, p94.

3.4.3. Researcher – Researched relationship

The researcher knowing the participants prior to the interviews resulted in one of the major problems posed through conducting interviews: the unequal power relationship between the researcher and the researched (Qu & Dumay, 2011). The researcher already had existing relationships with all participants having been the instructor on all the courses under discussion. He had a position as a subject matter expert, teacher and, in several cases, a significant age difference between himself and the interviewees. This is not unusual in professional doctorates as many students' organisations or sponsoring companies become their research location (Mercer, 2007). However, it could potentially become a problematic power differential, therefore a high degree of sensitivity and reflexivity was required (Hellowell, 2006).

Given the existing relationship, it is possible that in an interview the participant will simply give the answers that they think the researcher wishes to hear. One way of addressing this is to mitigate the influence of the power dynamic. In an effort to make the interview less formal and give the power back to the participant, the researcher deliberately dressed down – substituting the normal suit and tie for trainers, jeans and a t-shirt. This was commented on by one participant who joked that “*you’ve come today in your student clothes!*” The power balance is also affected by the location of the interview (Munro *et al.*, 2004), so care was taken, where possible, to interview in an environment familiar to the interviewee. This was normally ‘their’ space – an office, meeting room or work cafeteria –

which mitigates the power balance. Interviewing in a work setting also has the advantage of enhancing work-related memories (Thompson, 2000), which is one of the purposes of the study.

There is much existing literature about the insider/outsider debate, however very little is directly related to educational evaluation (Mercer, 2007). Hellowell (2006) defines an insider-researcher as being someone with existing detailed knowledge of an organisation or community, without necessarily being part of those groups. This perfectly describes the position of the researcher in this study. While an outsider-researcher (a stranger to the organisation) may be able to achieve greater objectivity in their research, often an insider can examine nuances only available to those with intimate knowledge of a situation (Gallais, 2008; Hellowell, 2006). This was certainly the case during these interviews when explicit examples could be discussed easily and readily shared, as both parties shared the same experience. However, there were several times during interviews when the researcher had to resist the temptation to ‘correct’ the recollection or statement of an interviewee as it was dissimilar to his own memory or that of other participants. This examination of perception and memory is fascinating as it addresses the biases that are filtered through the experiences and views of both the researcher and the researched. The conversational approach that was adopted, where the researcher primarily listens and rarely speaks, was another attempt to allow distance from the data and to encourage the participants voice to be heard unguided by the researcher.

The literature also suggests that ideally a researcher should be both insider and outsider – being both empathetic but also maintaining distance – and that in most research a continuum exists (Gallais, 2008) between “complete observer” and

“complete participant” (Hellawell, 2006, p488). The researcher position on this continuum can also change throughout the duration of the study. Through the process of conducting the research and progression through the DBA, the researcher became more conversant with the internal perspectives and mechanics of academic work and, it could be argued, became more of an insider as a result. Ironically, most participants commented during interviews that they regarded, and valued, the researcher (certainly when in his capacity as instructor) as an external or outsider. This identification and acknowledgement of similarities and differences has allowed a greater degree of reflexivity in this thesis (Gallais, 2008).

Finally, Thompson (2000) urges care be taken in the writing process: while oral evidence can be analysed and compared in a similar way to any data source, knowing the participants well can influence how the researcher interprets their words. The danger is that the researcher knows, because of their personal connection to the participant, that some meanings that become evident through the data would be rebuffed by the interviewee so are omitted from the thesis. Author bias such as expectation, ideas and (particularly in this study) personal recollections also strongly influence the final content. However rather than being a weakness, this is a strength which this study takes from such an exploratory approach: that it explicitly addresses the friction between history and real life. The use of an analytical method that relies heavily upon personal (or researcher) interpretation should not be seen as implying less analytical rigour (Saunders *et al.*, 2012).

3.5. Sampling

For the study a total of thirteen university staff from five different institutions were selected for interview. They came from a variety of subject areas, but had attended the same project management training programme. The purpose of this section is to discuss the sampling strategy adopted for this study. It discusses, firstly, the theoretical considerations and, latterly, the mechanism used.

The sample size in this study was influenced by both by time and need. With the aim of the study to assess participant value, the sampling is purposive by nature. It required selecting participants who claimed to value the training and attempted to understand why they viewed it as valuable. Research into management education frequently uses small sample sizes (Culpin *et al.*, 2014; Hill & Wright, 2001) and, as the focus of this research was investigating individual value assessment, a large number of participants was not required (Guest *et al.*, 2006). Although sometimes criticised for delivering only partial data, a small number of participants is well-suited for this research as the focal point is what people remember as being important rather than drawing any generalised conclusions (Ladyshevsky & Flavell, 2011; Patton, 2002). Similarly, purposive sampling fulfils the requirements of the research as it was not focused on validating a training course, simply investigating participant perceptions. It permitted a flexible approach to the data collection but with a basic underlying framework that would allow replicability between participants.

To select participants the following procedure was followed. At the conclusion of the training programmes conducted by Fistral Training and Consultancy Ltd. for staff and students at five UK universities between January and November 2012,

the researcher explained the nature of the project and asked whether any attendees would be willing to participate. This produced a list of over 50 potential participants drawn from a number of different universities, disciplines, backgrounds and levels of experience. This was added to an existing list of a further 32 potential participants who remained in contact with the researcher. This list constitutes people who have attended a 4-day suite of Fistral's project management training events:

- Project Management in the Real World (2 days)
- Project Risk Management (1 day)
- Advanced Project Management (1 day)

They have all also subsequently successfully attained, or intend to sit, the exam for the self-funded Certified Associate in Project Management (CAPM) accreditation offered by the international Project Management Institute (PMI).

3.5.1. Description of training programme

The course descriptions and content issued to Fistral customers are detailed in Appendix VI. These include an overview of the structure and learning outcomes. Detailed description of the process and material is not included due to commercial sensitivity, however the following details the approach taken to conducting the programme.

With the exception of the "CAPM Preparation Day", the theoretical basis for the programme is not restricted to a specific project management methodology. The courses take their knowledge base through reference to popular project management approaches, for example PMBOK (PMI, 2013b), PRINCE2 (OGC, 2005), Agile (Wysocki, 2014) and APM (APM, 2012), but also include best

practice as identified through the experience of the instructors. The delivery of the theoretical elements is through a mixture of exposition, examples to contextualise the learning and provision of hand-out materials. These lecture based sessions (typically lasting between 45-60mins) are interspersed throughout the courses with group exercises to deliver attendees with an applicable and transferable skill set. The skills base has been developed from the methodological approaches discussed, but also from instructor experience.

Each of the initial three courses utilises a generic case study as a cognitive to vehicle to allow application of the theory in an accessible environment. It permits delegates the opportunity to apply, test and consider techniques in the safe environment of the training room. The case study continues throughout the programme where increasingly complex scenarios are given to attendees to solve. “Project Management in the Real World” focuses on planning a project and, in doing so, providing the attendee with controls to be able to run their work effectively. “Project Risk Management” covers the management of uncertainty (positive and negative) in a work environment and deals with tactics to improve identification, assessment and response to unexpected events. “Advanced Project Management” takes the introductory topics to more depth but also introduces methods for managing more complex methods including critical chain management (Goldratt, 1997), matrix project management and different methods of project phasing. The final course of the suite “CAPM Preparation Day” is the only event that is specifically linked to a single methodology, the PMBOK (PMI, 2013b), as it is designed to pass an examination based on that approach.

3.5.2. Study participants

Ensuring that participants are confined to those who attended courses through genuine interest in the learning, rather than simply getting another compulsory professional development training credit, allowed focus on those who claimed to perceive value in the project management training programme. Detailed pen pictures are included in the subsequent sections (s3.5.3) to give the reader a greater understanding of the individual and allow their voice to have greater resonance in the thesis. A summary of the participants interviewed is detailed in Table 3.1.

Table 3.1: Study participants

Name	Position
Alan	Senior Manufacturing Engineer (Collaborative Government-University-Industry Research Facility)
Barry	Engineer (Recent PhD graduate in SME supporting oil and gas industry)
Cara	Research Fellow and Trial Manager (Medicine)
Emma	Postgraduate Research Student (Music)
Hannah	Assistant College Registrar (Administration)
Jane	Research Grant Manager (Nutrition and health)
John	Quality Manager (Nutrition and health)
Karen	Research Associate (Management)
Liam	Project Manager of a large European research programme (Bio-chemistry)
Michael	Postgraduate Research Student (Space and aeronautical engineering)
Natalie	Research associate (Engineering tomography)
Steph	Post-doctoral researcher & laboratory manager (Microbiology)
Stuart	Veterinary Research Officer; Honorary Lecturer; PhD Student (Veterinary science)

Often there is disagreement between qualitative researchers on the exact sample size required (Marshall *et al.*, 2013), however Guest *et al.* (2006) recommend that for this type of study around twelve in-depth interviews is sufficient. In light of this, thirteen participants were chosen. They were selected to reflect a range of disciplines within higher education, ranging from music to engineering to medicine to administration. The sample also exhibited different levels of

experience including PhD students, post-doctoral researchers, research managers and PIs.

One participant, Barry, was a PhD student when chosen as a participant however subsequently, but before interview, submitted his thesis and left the university to be employed by an engineering company. It was decided to retain Barry as a participant for two main reasons. Firstly, he had undertaken the training recently in his capacity as a PhD student and, secondly, it would be of interest to hear his views on the training programme now that he was working in industry, given the increasing call for training to align more closely with employability (Bromley, 2010; Golovushkina & Milligan, 2013; Mellors-Bourne *et al.*, 2013; Rae & Woodier-Harris, 2013; Rae, 2010; Smith *et al.*, 2010; Vitae, 2012, 2013; Williams *et al.*, 2013).

The sampling raises several issues for the study. First, that the people agreeing to participate will be expected to exhibit positive bias, as completing the course implicitly indicates that they have valued their participation. However, this does not need to be an issue as it mirrors Brinkerhoff's (2003) Success Case Method approach. He defends it by arguing that a lot can be learned from the people who experience the greatest benefits from a training course, and it can allow focus for improvement. Second, this method could also be criticised for making it difficult to make any judgements on the overall success of a programme. However, like Brinkerhoff, this notion is rejected because the aim is not to make any comment on an overall programme evaluation other than the elements that particular individuals found to be personally valuable.

3.5.3. *Participants pen pictures*

Overviews of each of the participants are provided to allow for a greater contextual understanding of the people interviewed in this study and to give a little background that could influence their personal perceptions of value. Following are brief pen portraits of the participants in alphabetical order. All information has been anonymised and participants are from the UK unless otherwise stated.

3.5.3.1. *Alan*

At the time of the study, Alan was a Senior Manufacturing Engineer within a medium-sized research facility jointly funded by a University and the UK Government. Born and bred in the West of Scotland, he had completed an undergraduate degree in product design engineering before working for several years on large EU-funded projects. It was during this time that he was seconded to work with the project coordination team. He wrote his part-time PhD in collaboration with BAE Systems before moving to the newly established research centre facility as Quality Manager focusing on improving procedures and processes. He is now a senior member of staff and has overseen the organisation grow to over 200 personnel. He initially attended the suite of courses to formalise his workplace learning, for affirmation that his project management skillset was valid and achieve a professional accreditation. He also wanted to demonstrate interest in taking his own professional development seriously within the organisation which would enhance his career goals. Alan subsequently rolled out the delivery to his own organisation and has put over 80 members of staff through the CAPM programme. He was included as a participant in this study to

investigate perception of value from a managerial perspective within an organisation tied closely to both academia and industry.

3.5.3.2. Barry

Being raised close to the ship building industry in Northern Ireland and with a natural ability in maths and science, from an early age Barry had a desire to become engineer. On completing school he attended college to study engineering before attending University to read for a 4-year Bachelor of Engineering degree which included a 1 year sandwich placement in industry. This further confirmed to Barry that engineering was his desired career path. He spent a year working in Hungary in an engineering company before being accepted to study for a PhD, which was his situation when he attended the courses being investigated in this research. He attended the project management courses because of word-of-mouth recommendation from a peer, and also for a desire to achieve a professional accreditation that would differentiate him from other PhD graduates when competing for jobs. When interviewed he was already working as an engineer providing services to the oil and gas industry, and the subsequent week he successfully passed his Viva Voce.

3.5.3.3. Cara

Originally from south-west England, Cara was inspired by her school science teacher to pursue her interest in biology into university at undergraduate level, before her passion for horses led to her achieving a Masters degree in equine science. She combined the two fields to complete a PhD in equine reproduction before moving into a post-doctoral position research neuroscience. Each degree was at a different university around the UK and she admits it is an interesting and

varied career so far. She is now a research fellow and trial manager and has worked at the same institution for past 5 years. Although she still enjoys the work she finds some of the laboratory activities have become rather mundane and originally attended the courses to “*put something else on my CV*” as she viewed project management is a very transferable skill in any environment. Following the courses she passed the CAPM examination and was included as participant in this study to investigate the perception of value of project management training from someone who has spent the entire career in an academic setting.

3.5.3.4. Emma

Born in the USA, Emma comes from a family of scientists. She attended a prestigious private American university to study medicine but ended up gaining a fellowship to research music history. During this time she spent time on exchange visits with universities in London and Paris studying French Renaissance music before moving to another American university to complete a Masters in experimental film. Following this Emma felt “*burnt-out with academia*”, so she took a 2 year sabbatical and worked as Head Of Household for two wealthy families in Washington, D.C. which involved planning every aspect of their domestic lives. She received funding to complete a PhD in musicology and moved to the UK in 2010. Emma attended the project management courses because she explained that she views “*pretty much everything I do is a project of some form or another, especially my PhD research*” and wanted to receive some formalised training. She also viewed her future career as being in public engagement with the arts and culture and considered project management training to be a useful underpinning to this aim. Researcher experience indicates that arts and humanities scholars are occasionally less willing than, for example, engineers to apply project

management techniques to their research, however Emma was included as a participant to investigate this perception.

3.5.3.5. *Hannah*

Hannah was born and raised in Canada and joined the Canadian Air Force directly from school as an officer. After leaving the military she worked with the government and was involved in international security and threats. Before coming to the UK she also worked in an administrative position at a major university. At the time of the interview she had been working in the UK for 7 years and was the Assistant College Registrar responsible for teaching and learning. A few days after meeting Hannah was beginning a new job as Business Improvement Specialist within the university. While this is a diverse career history, the theme of organisation and management of people is a common thread running through all of her positions. Hannah signed up for the courses because she considered that project management training would be of assistance in her future role. It would also be another “*useful tool to add to my toolbox*”. She was particularly interested in the project risk management course as risk assessment was something she was newly involved with at organisational level but without any formal training.

3.5.3.6. *Jane*

Originally from southern, rural England, Jane achieved a 2:1 undergraduate degree in immunology and continued directly on to a Masters in London. She completed a PhD, during which she worked in Tanzania, but found it a struggle which she now reflects on as partially due to a lack of management in her department. During her studies she had around 20 different part-time jobs which

she believes gave her a good understanding of people. Later, she became a project manager for a development charity working overseas with UK volunteers and engaging with the local community before returning to the UK to work with a major UK research charity. She now works as a grant manager at a research institute so although her job is primarily that of a project manager she had never received any formal training. She wanted to affirmation in her current role but also to learn some of the theory underpinning the practical techniques she had acquired tacitly in the workplace.

3.5.3.7. John

John was raised in the south-west of England but since doing his BSc in biochemistry in London, he has lived all over the UK. He began his career within academia before moving to the commercial sector performing various analysis jobs in laboratories. He made a conscious decision to move out of lab work by becoming a QA Manager for a contract research organisation in Edinburgh before becoming a GMP (Good Manufacturing Practice) auditor in the pharmaceutical industry. He moved into his current role 7 years ago and is responsible for ISO-9001 compliance and adherence to NHS guidelines for clinical trials. He attended the project management programme to broaden his skillset and to take advantage of the professional development training offered by the University. He also intends to roll out the acquired learning as good practice across the research institute. Additionally, coming from an auditing background he was attracted to being able to achieve an industry-recognised accreditation linked to the programme.

3.5.3.8. *Karen*

Born in Greece, Karen moved to the UK for her undergraduate degree, continued on to an MSc and finally her doctorate in pipeline engineering. She now is now part of the Management of Projects Research Group at the University and is involved in research, teaching and supervising. Her interests include environmental studies, engineering and neuro-linguistic programming in project management. Her original driving for attending the project management programme was an interest that had been ignited during her PhD through interaction with other collaborative partners and industry. She wanted to move more into research management rather than remaining full time in the laboratory and saw the training as a method of developing skills that would help fulfil this aim. Additionally, being a member of the Management of Projects Research Group she has a lot of theoretical knowledge of project management but admits to very little practical understanding or application.

3.5.3.9. *Liam*

Originally a bench chemist, Liam is now project manager for a €10M pan-European research programme involving 17 industrial and academic partners and a multi-located team of around 50 people. Brought up in the north of England, he moved to Scotland to study chemistry at university and completed a 5-years Masters degree which included 1 year working in the pharmaceutical industry. He remained at the same university to write his PhD in organic chemistry and, on completion, followed his supervisor to another institution where is was responsible for setting up and organising a new set of laboratories. He spent a further 2 years in research before slowly moving in research management and,

latterly, his current role. At the time of interview, Liam was preparing to begin a new role as Grants Manager for newly established centre of excellence at his institution where he will be responsible for identifying funding opportunity, building consortia and recruiting on to the grants. He signed up for the courses for three primary reasons: first, to teach him something he was lacking; second, to gain a better understanding of project management terminology and, therefore, a better understanding of what people were meaning; and, third, for the professional accreditation. His participation in this study was to investigate to perceptions of value of an experienced research project manager.

3.5.3.10. Michael

From the Scottish central belt, Michael first attended a project management training event at the end of the first year of his PhD in spacecraft trajectory optimisation. As well as the requirement to gain training credits through the University's researcher development programme, his industry experience led him to believe that project management would help him in his current role but also enhance future career prospects. Previously he had completed an undergraduate degree in aeromechanical engineering and had placement work experience at a number of engineering companies in central Scotland. He is a STEMNet Ambassador and is involved with several educational outreach projects. He has travelled extensively, working while backpacking abroad, which he believes has educated him in understanding people which is a good basis for management. He also took part in a ERASMUS student exchange with a university in the Arctic Circle where they were taught "*project management of the wild*" by the Swedish Army.

3.5.3.11.Natalie

Natalie completed her B.Eng. in electrical engineering in her native Serbia before moving to Germany to complete a PhD and begin her post-doc career. After 6 years she moved to the UK and now conducts research primarily into the problems of medical tomography with a NHS hospital. She really enjoys the teamwork this collaboration brings, coupling the requirements for ethical approval and patient interaction with solving engineering problems and delivering practical solutions. Being involved in this environment, her primary driver for attending the programme was to gain an understanding of the project management principles that were being employed in her project and to receive a set of tools to make her more efficient in her own work. The interest of Natalie to the study is that she is career researcher with no experience of, or desire to move into, industry, and whether this would influence her perceived value of the project management training suite.

3.5.3.12.Steph

Steph has remained local to her Scottish roots and still has a strong connection with the area through family, work and hobbies. She is a career academic getting having achieved a First in biochemistry and then completing a PhD in which all seemed a natural progression. She got on very well with her laboratory and supervisor and is currently in her second post-doctoral contract having initially been employed following her thesis submission She now manages the laboratory doing microbiology-based research which was led, until recently, by a world-renowned professor. Her role involves research as well as running the lab on a day-to-day basis and supervisory duties. Following the uncertainty created by the

leading academic leaving, Steph, along with others in the lab, determined to investigate updating their skillsets which was a primary driver (along with word-of-mouth recommendations) for first attending the project management workshops. On a personal level, she likes riding and keeps a horse, and also visits her fiancé in North America several times a year.

3.5.3.13. Stuart

Northern Irish Stuart has been on what he describes as a “slightly tortuous career path”. He originally studied dentistry before moving into veterinary science after first year. He began as a practice vet focusing primarily on farm animals and equine practice, but after several years injury forced him into an office job where he established and managed a national veterinary secretariat. This gave him national exposure and he was invited to work with the civil service in the public sector in a variety of roles including veterinary research office and contingency planning for episodic disease outbreaks. In addition to this work he is now an honorary lecturer whilst also studying for a PhD. He attended because he perceived there to be project management elements associated with almost all aspects of his work even, for example, the gestation period of cattle. So as attendance was required at a certain number of researcher training programmes, he considered project management to be a more applicable option than some of the others on offer. Understanding Stuart’s perception of the value of project management training is of interest to this study as he has such a different background to many PhDs and researchers.

3.6. Data analysis

This section deals with the analysis of the data. It begins by discussing the transcription of the interviews before detailing the coding methods implemented in NVivo software.

There are many different methods of analysis of qualitative data, and a key determinant of method of analysis is whether study is deductive or inductive. This decision stems primarily from the objectives of the research and whether the desire is to explain (*erklaren*) or understand (*verstehen*) the phenomena under scrutiny (Gill & Johnson, 2002). Both have distinct philosophical and methodological commitments that will guide the data analysis. In reality, many management studies use a combination of inductive and deductive approaches, and oscillate between the two to great effect (Saunders *et al.*, 2012). In this research, the IMPACT themes that were developed from the literature and were honed during the pilot study, instructed the initial analysis of the data. The two-phased interview approach also permitted flexibility and adaption of the research as information was developed from the data. As the researcher is active in the area of study and has prior knowledge of the participants, a purely inductive, or even grounded, approach would prove difficult given the literature themes and general expectations. However, given the lack of literature in the specific area of external instructors delivering project management training courses, tending more towards an inductive approach would be appropriate (Alsudiri *et al.*, 2013).

3.6.1. Transcription

In his seminal work, Thompson (2000) argues that there is no substitute for full transcription, but time can limit this - most research methods suggest that even a

touch-typist takes between 6-10 hours to fully transcribe 1 hour of interview (Saunders *et al.*, 2012). While self-transcription might allow greater familiarity with the material it was restrictively time-consuming given the number and length of interviews. The decision was taken to outsource the transcription to a professional company. This approach is sometimes criticised for restricting investigation of the nuance of a conversation, however listening back to complete recordings mitigated this (Thompson, 2000). Additionally, the subject matter in this study is not particularly personal or sensitive in nature so a verbatim level of transcription was not required - it is not the recording that is being preserved but the analysis of the conversation content. Some argue that full verbatim transcription actually inhibit rather than enhance a study. For instance, Frisch (1990) asserts that the more accurately the voice is transcribed in an attempt to give it prominence, the greater the danger that the resulting transcription becomes illegible.

3.6.2. Process of coding and analysis

Within qualitative research coding and analysis are not two separate activities, but the single task by which all the data is considered (Miles & Huberman, 1994; Strauss & Corbin, 1990). This section considers the process of the analysis with a sub-sections addressing the validity and reliability of the study.

For many researchers coding and analysis is simply a method of organising information to make it easier to interpret using descriptive keywords (Catterall, 1996; Robson & Foster, 1989). According to Brod *et al.* (2009, p1268) in interpretative research the purpose is to “generate new information regarding the topic of interest based on previously identified possibilities, as well as newly

provided information from the research participants”. As such, the process adopted for this study was based on the conceptual IMPACT framework identified during the literature review with the addition of emergent themes from the interviews. These ranged from short phrases to extended quotations. This process of initially using the themes from the literature was followed to, initially, to act as a starting point for beginning to analyse a vast amount of data (over 16 hours of interview recordings) and, latterly, to allow comparisons to be drawn between the extant literature and the data received from the interviews. Upon completion of the coding the new, emergent codes were, where possible, aggregated into larger thematic categories which objectively, and without prejudice, aligned with the previously identified classifications. Due to the time and resource constraints of doctoral study it was not deemed appropriate for other researchers to cross-check the data coding, and this consideration gives rise to potential questions pertaining to the validity and reliability of the findings which are addressed in section 5.0 (p97).

Once transcribed, but before beginning to codify, the interviews were broadly evaluated in three ways (Thompson, 2000). First, they were examined holistically as text to become aware of overall meanings, repetition and imagery. Second, they were scrutinised to contrast the objective, checkable elements (times, places etc.) with subjective ideas, feelings and perceptions. Finally, it is important to understand how reliable or typical a testimony may be. To evaluate reliability every interview was examined for “internal consistency” (Thompson, 2000, p272). This helped to identify the degree to which participants were actually remembering or just reflecting using the influence of subsequent experience.

The aim of this study is to investigate why people place value in certain areas, so what they think they remember is almost as important as the true memories themselves. Thompson (2000, p273) argues that inconsistency in this area, and whether the story “rings true”, can be highly revealing. Ultimately, oral evidence of any type is about personal perception. An interview can give an indication of the truth, however it will always be an interpretation which can never be confirmed, but it can be assessed. Comparing the two interviews in this study and then placing these within a wider social context (what is already known about this subject area) can give more weight to the accuracy of the interpretation.

Following this initial evaluation, the transcribed interviews were coded in to two sub-domains: the themes that emerged from the pilot study and the literature; and created new categories if they were needed (Brod *et al.*, 2009). For the pilot this was attempted by hand. Being an interpretative study, there was no desire to use software to generate numbers or statistics, however during the main study NVivo 10 software was used solely to contain all the data in a single repository and make information access and storage easier for the researcher. New sub-codes were created using phrases or words that emerged from the data. These units of data differed in size from single words, to phrases, to sentences, or even paragraphs, although it is normal for initial coding to look at smaller rather than larger data chunks (Saunders *et al.*, 2012).

After this initial codifying of the data, focused analysis of the newly generated codes aggregated the new small data units into higher level categories according to emergent themes. These broader categories allowed easier comparison and contrast across the different interviews (Saunders *et al.*, 2012). Saunders *et al.* also argue that this will be an iterative process with continual reassessment of the

themes and codes as the understanding emerges from the data. Given that this method of coding and analysing data is interpretative and, therefore, highly subjective, issues arise around the legitimacy of the findings.

A common criticism of qualitative research is that generalisations cannot be drawn from such small sample sizes and that this raises questions surrounding the validity and reliability of any findings (Brod *et al.*, 2009). One response to this argument is that other types of study can be used to establish this if desired, and such qualitative research is about understanding individual perceptions rather than explaining generalised phenomena. The purpose of this study is to investigate subjective versions of reality rather than developing a single, unifying theory.

However, qualitative research of this nature is also criticised for being subject to the biases, values and interpretation of the researcher, particularly when analysing the interview data. This has already been addressed in s3.4.3 (p76) as one of the limitations of this study, but it is not a criticism that is only levelled at this type of research. In quantitative research, the analysis of the data is similarly based on the artificial categorisation of groupings, and can incorporate a researcher's interpretation and subjective assumptions. This contradicts the objectivity often asserted in these studies. By aggregating data into categories and variables in order to make generalisations, these methods can lose sight of the individuals at the heart of the study and miss the complexities of the personal perceptions that this study is investigating. Nevertheless, the notions of validity and reliability have been seen as problematic in qualitative, interpretative research (Saunders *et al.*, 2012) where demonstrating either replicability or generalisability is sometimes difficult. The following sub-sections address these concerns.

3.6.2.1. Validity

Some argue that validity is equally critical for quantitative and qualitative research (Ellram, 1996; Mentzer & Flint, 1997; Yin, 2009), however others argue the integrity of a study should be assessed according to the particular research paradigm (Healy & Perry, 2000). Lincoln & Guba (1985) propose using: “credibility” (the degree to which a respondent's views fit with an researcher’s interpretation) for internal validity; and “transferability” (generating sufficient data that case-to-case generalisations are possible) for external validity. These concepts, while more subjective, are an alternative method of establishing the trustworthiness of the findings in qualitative research (Duxbury, 2012).

The first major issue surrounding the internal validity (which Lincoln & Guba call “credibility”) of the qualitative research is the effect that the researcher has on the research. This has already been considered extensively in s3.4.3 (p76). Internal validity refers to ability to demonstrate that a research method is measuring what it is intended to measure. However, this study is not focused on measurement or explanation, but gaining an understanding of individuals. One of the primary reasons for conducting a second interview was that it would be considered a form of respondent validation that would confirm a correct interpretation of the findings of the first meeting, but also potentially highlight any conflicts between the narratives of the first and second encounters. Riessman (1993) supports this approach, contending that revisiting participants is desirable as their responses can also be a further source of insight. This study is investigating individual perceptions and, rather than being preoccupied with historical truth, is focused on an understanding of the subjective reality as viewed through the lens of the participant. In fact, Riessman (1993, p64) further argues that the “prevailing

concepts of verification and procedures for establishing validity rely on realist assumptions and consequently are largely irrelevant” to this type of study.

External validity is the ability to generalise the findings of the research – for qualitative research Lincoln & Guba (1985) suggest using the term “dependability”. While there is no assertion that the findings of this study are generalisable (s3.5, p79), the use of a consistent process in gathering the interview data ensures that there is sufficient evidence, covering similar topics, to permit case-to-case comparisons to be drawn. The nature of this study is strongly subjective as it is focused on individual perceptions. Given this emphasis and the small sample size, commonalities may be drawn between the participants but the findings are not generalisable. However, using a taxonomy that was developed from the literature to analyse the research helps in demonstrating contribution and significance of the findings (Bryman, 1988) as it confirms a link to existing theory. Although this does not constitute the objectivist notion of external validity and may not be generalisable in statistical terms, it does succeed in allowing the views of the participants of the study to be compared and contrasted with each other. The interview guide (detailed in Appendix IV and Appendix V) provide a basis for ensuring that similar themes and topics were addressed in each interview. Following that, the second interview asked more pointed, direct questions that can be compared a provide indications of similarity or divergence between the participants.

3.6.2.2. Reliability

The reliability of a research method is the degree to which another researcher could replicate the study and produce similar results (Gill & Johnson, 2002). For

qualitative study such as this, Lincoln & Guba (1985) propose using “dependability” (the degree to which the research process is logical, transparent and documented) rather than reliability. Reliability, in its crudest sense, should not be a concern for this project because the study itself is not designed to be repeatable as the findings are very much based on a specific situation (i.e. the training course attended). However, despite the researcher having a significant influence in this study, as discussed in s3.4.3 (p76), the research process has been clearly documented. Another researcher could easily replicate the method of this study using the notes provided and allow them to reproduce the approach adopted. The reason for using exploratory interviews was to attempt to understand the complexity of the topic and adopting a standardised approach would compromise this flexibility (Ladyshevsky & Flavell, 2011). As such, each conversation with a participant was different and evolved as the discussion progressed. To further complicate the issue of reliability, a participant’s narrative during the interview is shaped by experience, influence and social discourse and would not remain constant over time thus potentially negating the ability to receive consistent evidence in a different setting. Providing an interview guide allows a degree of replicability of the process, if not the data itself. Seale (1999, p148) describes dependability in qualitative research as being the process of “recording observations in terms that are as concrete as possible, including verbatim accounts of what people say, for example, rather than researchers’ personal perspectives to influence the reporting”. As described, all interviews were recorded and transcribed in full, and the extracts in Chapter 4: Findings (p104) are taken verbatim from these records. Additionally, the notes within this methodology chapter would allow other researchers to replicate similar studies but it would be

impossible to fully imitate the study due to the heavy influence that the researcher has over it.

3.7. Ethics

Ethics play an important role in every research project and all efforts were made to protect those involved in this study. This research follows the guidelines laid down by the University (Edinburgh Napier University, 2013). Furthermore, the researcher is obligated to adhere to the standards defined in the PMI's (Project Management Institute) Code of Ethics and Professional Conduct (PMI, 2013a). The following section discusses the ethical considerations for this study.

When initially approached the participants were given a description of the research and this was repeated in the invitation to interview email which was subsequently sent. At all times it was reiterated that participants could withdraw at any time without explanation. At the beginning of the interview the researcher explained the interview process (Qu & Dumay, 2011), reminded the participant of the aims of the research and presented an information sheet (Appendix VII) and consent form (Appendix VIII). In addition to the formal written consent, the questions concerning consent and understanding were also asked verbally at the start of the interview and recorded.

All participants were offered anonymity. This was offered rather than enforced as there is an argument that, when using such a conversation interview method, anonymisation robs the interviewee of their identity (Thompson, 2000). None of the participants chose to be anonymised, probably as the content of the interview had very little contentious material. However after consultation with more experienced researchers it was decided to anonymise names nevertheless.

The other question that was asked during the consent stage was whether or not the research sponsor (Fistral) would be allowed to use the outputs of the research (which may include the participant's data) to promote the organisation and/or future events. One of Fistral's primary aims of funding the research is to access to the output, and it was felt that offering an unconstrained opt in/out would constitute informed consent. All the participants permitted this usage of the data.

Following the transcription, each of the participants was sent a copy of their transcription for approval and asked to read through and change, delete or update it as they felt appropriate. They were also given the option to withdraw if they felt uncomfortable with the content of the transcription. A number of participants took advantage of the opportunity to anonymise the names of people and organisations, or to delete the occasional expletive.

3.8. Strengths and limitations

It is important to acknowledge the strengths and limitations of this research (and many have been discussed in earlier sections). The complex power dynamic between researcher and participant was detailed in section 3.4.3 (p76) and, although unavoidable, steps were taken to mitigate the impact. Additionally, given the sample size and the very subjective interview method, it is clear that the study's validity, particularly in terms of its generalisability, should not be overstated.

Given the methods to be employed, there is very little that can be done to avoid redundant data, other than direction by the interviewer. This gives rise to another significant concern for any interpretivist project which is the degree to which researchers voice dominates the thesis (Shopes, 2006), often shaping and

interpreting the output to suit their own research agendas. Ryan (2009, p27) stresses the need for “sympathetic listening” while gathering and interpreting data sensitively. This interpretive adjustment is, however, two-way. Portelli (2006) views the narrator (or participant) as constantly reframing and shaping their story based on the feedback and reaction of the interviewer. He says that this more conversational approach makes this approach distinctive from a traditional Q&A interview in as much as it is actively created by the interactive dialogue between researcher and participant. This crafting does not end upon termination of the interview. Jones (2004) argues that the interview is simply the starting point after which the transcription, editing, analysing and interpreting all impact on the final work. Once again, the decisions made during this process are heavily based on the specific research agenda.

It is argued that, despite these limitations, the use of this qualitative research method is an important contribution of this study. Qualitative techniques are particularly appropriate when examining new areas (Butterfield *et al.*, 2004) and rigour has been ensured by implementing the measures described here.

CHAPTER 4: FINDINGS

4.1. Introduction

From the literature review, two research questions were developed (section 2.6.2, p59). First, how do participants perceive value in the context of project management training. Second, what are the key indicators for the identification of value in the evaluation of project management training. Brinkerhoff's (2003) Success Case Method evaluation framework was identified as the existing model that could be adapted most easily to investigate these issues through conversational interviews with course participants.

The purpose of this chapter is to present the findings of the interviews. It begins with a brief outline of the categories derived from the literature (and used as the basis of the data analysis). It then uses these categories as sections to present the findings. Each section concludes by drawing comparisons between participant responses and the existing body of work, before summarising the findings which address the concerns that emerged from the arguments in the literature.

4.2. Summary of thematic categories

Six elements were thematically developed from the literature to be used as a lens through which to investigate an attendees' perceived value of a course. This was given the acronym IMPACT standing for importance, method, purpose, approach, content and trainee characteristics. These elements were identified as potentially the key areas through which training course attendees assess subjective worth. These are used as a construct to analyse the data with the first and second order themes as identified in the literature summarised in Table 4.1.

Table 4.1: Summary of thematic categories

1st Order Themes	
Importance to participants of project management training	<i>The significance with which the attendees viewed the undertaking of project management training prior to the course</i>
	2nd Order Themes
	PM ability is derived primarily from experience not training
	Existing evaluation frameworks may not adequately assess project management training
	Training can help to improve project management ability
Method of facilitating project management training	<i>The preferred type of instructor for course facilitation</i>
	2nd Order Themes
	It is preferable for project management training facilitated by those with a robust theoretical grounding in the subject
	Project Management training is best facilitated by experienced practitioners
	The experience of practitioners lend credibility to the learning and enhance the perceived training value
Purpose of conducting project management training	<i>The primary function of project management training</i>
	2nd Order Themes
	Project Management training outcomes should deliver thorough subject understanding
	Project Management training outcomes should focus on workplace applicability
Approach to delivering project management training	<i>The favoured style and level of detail of the training course</i>
	2nd Order Themes
	Project Management training is ineffectual due to its simplicity
	Project Management is based too heavily on professional bodies of knowledge
	Project Management technique is not complex, so training reflects this
	Project Management should be based on the tools used by practitioners
Content of the project management training course	<i>The material and subject matter</i>
	2nd Order Themes
	Many academic project management programmes are theoretically rigorous but lack 'real world' applicability
	Project Management training material should be primarily practically-based
	Close alignment of material with attendees working environment is desirable
	Generic material is preferable as it allows participants to consider their own method of application
Trainee characteristics that influence the perceived value of project management training	<i>Aspects of participants personality that could influence their evaluation</i>
	2nd Order Themes
	Self-efficacy is key to improved learning
	Perceived value of training is strongly influenced by individual, personal characteristics

The remainder of this chapter is divided into six sections in line with the first order themes to present the research findings. It is further split into smaller sub-sections as required to address specific concerns arising from the second order themes.

4.3. Importance to participants of project management training

In the category of ‘importance’ two concerns developed from the literature: how do participant expectations and prior experiences influence their perceived value of project management training; second, because of the difficulty in assessing project management training is there a requirement for a bespoke framework. The first concern is addressed in two sub-sections discussing the link between perceived value and current role, and project management training and future career prospects. A third sub-section considers the emergent theme of individual expectation influencing perceived value.

4.3.1. The role of experience in shaping participants perceived value of project management training

‘Importance’ was created by identifying the contention that project management ability is based primarily on experience and cannot easily be taught in a formal training environment (Davies, 2000; West, 2003). It is proposed that through examining reasons why participants attend project management training events and identifying their specific course expectations, the importance placed on such courses by attendees may be highlighted. Emma when asked about her initial reasons for enrolling on the course said:

I thought it would be particularly useful, because I do recognise that pretty much everything I do is a project of some form or another, especially my PhD research ... One of the number one problems with people in academia, especially in academia in the arts, is a systemic inability to do business and to do management and that's a culture that, in some ways, some institutions are almost proud of ... It's really important for me to be able to have my own personal value proposition in going out into the world and saying, yes, I have a degree in the arts and I have all this experience as an artist and as someone enabling other arts projects, but I also can do management, I can do these real world practices or day to day office administrative stuff because, I think, that's a real weakness in many of my colleagues and friends ... [I thought that] maybe I would learn something useful out of this course and, of course, to have something I might actually add to my CV. (Emma, Postgraduate Research Student - Music)

In this extract Emma highlights three primary areas: the transferability of project management training; the differing points of view of academics and practitioners; and the application of the training to her current role. These were the main points identified in the literature and were highlighted as key by all of the interviewees. First, she alludes to the transferable nature of project management which supports the contention that it is a skill that can be utilised in many different environments (Loo, 1996; PMI, 2011; Wearne, 2008; Wirth, 1996). Historically, project management has been associated with engineering projects (for example; civil, construction or mechanical) or business activities (for example; product

development or IT system implementation) (Edmonds, 2010), however Emma discusses applying it to arts and research projects. This transferability of skills across a range of disciplines has long been championed by scholars and practitioners so it is particularly interesting that this was the first point Emma raised.

From the outset of the interview, she also mentions the conflicting ideas that people have of project management in an academic environment which were strongly identified in the literature (Giangreco *et al.*, 2010; Kwak & Anbari, 2009). This will be discussed more fully in subsequent sections on ‘method’ and ‘purpose’, however it is noteworthy because one of the primary reasons for attending was to address this perceived lack of project management ability in her area. This observation is also based firmly on her experience of working and studying in a number of institutions around the world. It indicates that experience can affect the personal value placed on this topic. She considers that the ability to effectively manage projects will act as a differentiator in her field when compared to her peers and give her something tangible to add to her CV.

Many of the comments made within the context of participants’ experience appear to be an important factor in determining value within this type of training environment, however this will be discussed separately along with other trainee characteristics. Reflecting on the importance post-course, Emma further commented:

I think, after coming out of the course, you can't help see it – like, it's everywhere – it's like when you learn a new word and people

won't stop saying it! (Emma, Postgraduate Research Student - Music)

Following the first course of the programme, this observation reinforced to Emma the perceived value of the project management training as she recognised the transferability of the training and, through it, regarded it as containing intrinsic value to her and her work. Such post-training reinforcement serves to enhance memories of the original course (Allison, 2006) and in doing so her comments also begin to question the accuracy of original memory (as discussed in Chapter 3). A fascinating question is whether the initial memory of the pre-training expectations has been enhanced by positive training and post-training experiences as she revisits the past and uses ensuing experience to make it more understandable. This is a common event when describing memories and is described by Linde (1993, p219) as the “creation of coherence”. Rather than being a realistic recollection of the training, the memory has developed over the intervening period using experiences that follow to help make sense of the original event. In a training environment it might be easier to consider that training a new skill is relatively futile until the student has the opportunity to utilise it. The subsequent application of the skill gives the context which makes the learning meaningful and, as a result, the recall and perceived value is enhanced. However, this is not a study in the accuracy or reliability of memory, it is investigating participant values, and the possibility of alteration does not diminish the memories as a valid data source. On the contrary, this possible change and strengthening of memory is affirmation that the training was valued. Rather than questioning the trustworthiness of the comment, for this study, it underlines the value placed on the training by the participant. Where this

consideration is important in this thesis is that the conversational interview method adopted allowed a sensitivity to the process of sense-making that more structured evaluation methods can fail to provide. It also begins to build a case towards West's (2003) suggestion that project management training may require a dedicated evaluation framework.

This link to application and direct relevance to current position that Emma discussed was also commented on by Hannah:

Well I signed up because I was convinced that it would help me in my job ... You can look at the organisation and say what kind of training can you provide me? And as part of my job and that's one of the incentives of being in any organisation (Hannah, Assistant College Registrar)

In the interview she forcefully explained that, unlike some of the other interviewees, she would only attend a training event if she could see a direct link to her work. This was primarily from the ethical and moral standpoint that if her employer was paying for her to attend a course it should have direct benefit to them, not only herself personally. In contrast, some of the other interviewees signed-up for numerous courses because either it was compulsory for their degree programme or they enrolled on every course available. For Hannah, the importance of the training lay in the direct contribution to her current position and there was a tangible and demonstrable link to her day-to-day job. Although the focus of the discussion was around individual importance and resulting change, for Hannah it was equally important to show organisational impact. She concluded that to justify both the financial investment and time commitment of a

training programme, the courses should also be immediately applicable and beneficial. This link to current role continued to be reflected in the comments of many of the participants including Karen:

It's very relevant to the current position; I am [working within the] management of projects group. It's all about projects and project management and management of projects which involves human behaviour, organisations, communications et cetera. So as a practical tool I didn't have any practical knowledge of project management. I knew it because I did it, I didn't have any training to do that. So for me it was very important to do a course like that. It's directly relevant to what I'm doing now (Karen, Research Associate - Management)

This statement from Karen is particularly interesting due to her admission that, although she is a senior researcher in one of the UK's leading project management research groups, she does not have any practical knowledge of the field. In most other subject areas, some form of applied experience would be a prerequisite for a post-doctoral position (for example, a chemistry researcher would be expected to have some laboratory experience). However, many management disciplines do not have this requirement. That is not to say that having concrete experience of a field is necessary to perform high quality research in an area, but simply that this observation perhaps highlights why there is a feeling among many practitioners (and increasing numbers of scholars (for example: Edmonds, 2010; Ojiako *et al.*, 2011; Pant & Baroudi, 2008)) that project management research is detached from the day-to-day requirements of the job. Karen attended the course because she recognised that the content was directly related to her current work and therein lay

the value for her. Her focus on the connection to current position and applicability continued:

My view is that everyone should do that course, whether they are leading something or not, because ... they will always have other people that they would need to train and manage. And they need even to plan their own research. I mean, PhD students plan their own research so I think that is a very useful tool (Karen, Research Associate - Management)

Following on from the link to her current role, Karen talks about the ability to apply the techniques discussed cross-discipline and the transferability of the subject matter which mirrors the views of previously cited authors (Bakker *et al.*, 2011; Loo, 1996; Wearne, 2008; Wirth, 1996). In terms of importance, nearly all the participants of the study highlighted this as a point of value to them – namely, that the training was not restrictive in terms of size of project, level of definition or particular subject. This will be discussed in more in the sections on ‘purpose’, ‘approach’ and ‘content’. However, Karen agrees with the contention of several scholars that training can assist in improving project management ability (Edmonds, 2010; Eskerod, 2010; Lee-Kelley & Blackman, 2011; Suikki *et al.*, 2006). It is also interesting to note that this was one of the first things brought up in the interview which implies it was a strong memory. When recalling the training events, the strength of the memory infers the level of importance placed on the statement (Thomson, 2007). The subject of memory will be revisited shortly.

The three main elements defined in this sub-section were that all the participants

perceived value in: the transferability of project management training; the differing points of view of academics and practitioners; and the application of the training to their current role. All interviewees were unanimous in their belief that it must be possible to practically implement any project management learning delivered in the training course. They also agreed that training could help in improving their project management abilities.

<p><u>Key finding:</u> Participants consider application to current role to be highly important and that view is derived, primarily, from their work experience.</p>
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4.3.2. *Enhancing career prospects through project management training*

Unlike many of the other participants, Michael initially attended to complete the mandatory number of credits for his PhD course. Experience, which is supported in the literature (Torbeck, 2010), tells a trainer that the most difficult attendees to engage and motivate are those who have only attended because a course is compulsory. There is often no desire to engage with the subject matter and, frequently, a tendency to become disruptive (a predictable reaction in any type of small group formation described by the Tuckman (1965) as ‘storming’). However, despite attendance being compulsory and largely due to his previous work experience, Michael considered there to be a value in attending:

The opportunity for the project management first came up through the research development programme in [the university], so from a purely professional point of view, I need credits, but then from a personal point of view, I’m interested in the project management side of things, so it was kind of helping me in both respects. So I thought it would be good to get experience in that, especially

when I'm doing the PhD, because I'm not getting much industrial experience from sitting here. So it was to add to that as well. And then after the project management was good I thought I'd do the risk management and then go on and sit the exam (Michael, Postgraduate Research Student - Space and aeronautical engineering)

Whereas the previous excerpts have considered the impact on the current position, Michael's primary driver (other than gaining the requisite number of credits) was to enhance his future prospects through training. Other participants discussed the immediate application, however Michael initially only viewed it as an enhancement to his CV and an opportunity to improve his career potential. This was a view echoed by all the student participants and it was only during the suite of courses that the immediate application became apparent to most. This implies that the experience of the individual has a large bearing on the expectations of participants during the sign-up stage when they are assessing the importance of a course. It is familiarity with a working environment that indicates to the participant whether there is value to be gained. The participants interviewed who were students all had previous work experience and they recognised that there may be long-term value in attending, however it raises an issue for research training coordinators as to how to attract students to courses who do not have this background. The evidence from these interviews suggest that the training is transferable and immediately applicable regardless of environment, however if perceived importance is largely based on personal experience then it will be difficult to identify any value if the familiarity with a working environment does not exist. This indicates that when commissioning, developing and marketing

training programmes, it is important for training developers and co-ordinators to consider the work exposure of their targeted attendees, particularly for early-career researchers where this experience may be limited.

Key finding: Workplace experience influences expectations and, hence, pre-course value assessments. So consideration of work familiarity is important.

4.3.3. Individual expectation influencing perceived value

One very interesting topic to emerge from the interviews was the word-of-mouth recommendations, almost peer pressure, that appear to stimulate initial attendance and the influence these pre-course expectations have on participants perceived value assessment. Being in a university environment, training is often more readily available than in a commercial organisation. Participants can pick and choose from a greater number of courses that not only align to their current or prospective roles but also have been endorsed by colleagues. While most of the participants mentioned that peer recommendation had been a motivator in attending the courses, the most emphatic was Steph:

It was recommended by everyone that had gone. Everyone raves that it was excellent. We get offered a lot of these courses and quite a lot of them you feel you take a day off work and you don't really get a lot back. But the positive feedback from all my colleagues was that it was worth doing, so I thought okay, I'll sign up (Steph, Post-doctoral researcher & laboratory manager - Microbiology)

This statement suggests the impact that positive feedback from previous attendees can have on people when they initially decide to attend an event, and it indicates that this can inform their expectations of the course. It also raises more interesting questions about memory and memory's fallibility. It is likely that Steph's perceptions of importance and value were influenced both pre- and post-training by the collective memories of herself and her colleagues. Collective memory is a category containing several subdivisions pertaining to the sharing, and forgetting, of information and knowledge within a group of individuals (Guan, 2008). The subset of collective memory most closely aligned to Steph's observation is "popular memory" (Thomson, 2007, p59) which considers that memories can be produced, altered or updated based on the expectations and norms of social groups. These can then influence the behaviours of the individuals within the group. In a setting such as a research laboratory, competition is rife (for example: competing for funding, contracts, papers and physical resources). This will influence how she remembers events, in this case training courses, because major differences in opinion with colleagues may not be voiced for fear of condemnation or ridicule (Davies, 2011). As such, it is possible that a group, team or even organisation can build a collective memory of these training courses that will affect the individual's recollection of them. Shared values provide the group with shared confirmation of the importance (or lack of import) of project management training. This study is not focusing on this notion of popular memory and whether it influences conformance of opinion within groups however, from these interviews, it appears that it plays a role in shaping participants' view of initial perceived importance. It is only mentioned here to further illustrate that the conversational interview approach which was adopted in this study permitted

deeper interrogation of a temporal aspects of evaluation (such as changing recall). It has allowed memory to become not only a method but also part of the subject of the research, allowing a greater understanding of individual perception. The experiences of this study suggest that using the conversational interview method could also be a suitable method of evaluating project management training.

<p><u>Key finding:</u> An evaluation method with the means of examining memory might be useful in the assessment of project management training</p>

To summarise this section, the importance that participants place on attending these training courses is associated closely with their reasons for attending. The findings indicate that these reasons link closely to their valuation of the training courses. The key participant responses linked to the arguments found in the literature are summarised in Table 4.2. The participants appear to agree with Davies (2000) that experience has a strong influence on increasing project management competence, however not necessarily in the way he described. He contended that project management training was unnecessary and that the only method of improvement was hands-on practise, but in this study it appears that in order to fully appreciate the training some familiarity with a working environment is required.

Surprisingly none of the participants had particularly strong expectations of what the course would contain or ultimately deliver other than an intuitive feeling that it would be worthwhile. Based on researcher experience and the literature (Lee-Kelley & Blackman, 2011; Noe, 1986; Torbeck, 2010), it had been anticipated that pre-training expectations and the ability of the courses to match them would be an important measure of value for participants. However, in this study it does

not appear to have been the case and expectations had less impact than would have been predicted. This has serious implications for how to evaluate project management training courses. If each participant has, at best, vague expectations from the course which are not specifically related to the learning outcomes developed by the course designer, then evaluating whether these outcomes have been met is pointless. Nevertheless, many of the existing evaluation frameworks use learning outcomes and associated measures as a key method of establishing success of a training programme. This could point towards the requirement of specialised evaluation framework to cover project management training.

Table 4.2: Key ‘importance’ findings in relation to the literature

	Argument(s)	Key author(s)	Finding(s)
Themes from literature	Project management ability is derived primarily from experience not training	<i>Davies, 2000</i>	Not supported. Experience is important but only in so far as it allows the attendee to contextualise the training
	Training can help to improve project management ability	<i>Edmonds, 2010</i> <i>Eskerod, 2010</i> <i>Lee-Kelley & Blackman, 2011</i> <i>Suikki et al., 2006</i>	Supported. Candidates attended primarily to improve ability linked to either current or future roles
	An individual’s perceived value is strongly influenced by their expectations	<i>Santos & Stuart, 2003</i>	Supported. However, any pre-course expectations centred around what the course would deliver holistically (i.e. job prospects, link to role) rather than specific material content
	Existing evaluation frameworks may not adequately assess project management training	<i>West, 2003</i> <i>Tasca et al., 2010</i>	Unclear. Many elements indicated as important by participants are not considered in existing frameworks, however more investigation need in following sections.
Emergent themes			A life context approach to the interviews allows consideration of memory and features missing from many traditional evaluation frameworks
			Dual interview ‘life story’ method allows investigation of memory and its reinforcement by subsequent experience

In the literature these arguments produced two main concerns: whether there is a requirement for a bespoke project management evaluation framework that more accurately reflects participants' perceived values (which developed the first research question); and whether experience and expectations influence evaluation (which highlighted indicators which informed the second research question). In addressing the latter of these concerns first, a notable consideration from this section is the effect that time and experience can have on the attendees' memory of a training event. When recalling the original training courses many of the participants discussed them in light of subsequent experiences and the participants' memory of their pre-course expectations could have been altered in the intervening period of time. Whether the following events influenced the individual memory is impossible to ascertain, however for so many individuals to mention them indicates that they had acted as some type of positive reinforcement. Acknowledging and embracing this effect is one of the most valuable outputs of the approach taken in this study. Typically quantitative, end-of-course questionnaires would not have the ability to interrogate the way in which participants remembered. However, the conversational interview approach permits consideration of the life context surrounding the training and allows a temporal aspect often missing from traditional models such as Hamblin (1974), Kirkpatrick (2006) and Phillips (2003). This finding answers and expands on the question of whether prior experience is important in individual assessment. The evidence indicates that experience both before and after the event assist in embedding the learning and raising the value of the course in the mind of the participant.

Returning to the first concern of whether a bespoke project management training evaluation framework is required, using ‘importance’ as one lens through which an individual’s value of project management training can be viewed is supported by this study. ‘Importance’ can be viewed in a similar way to ‘context’ and ‘input’ in the Easterby-Smith (1994) and Warr *et al.* (1970) models in terms of examining the situational perspective of the training. However, the key point from this section is that ‘importance’ differs from ‘context’ and ‘input’ because it focuses not only on organisational culture but also personal situation and background (not necessarily linked to role or task). It interrogates the view of pre-course importance which relies strongly on participant experience, transferability of content and also the link it has to current work position. The qualitative method of enquiry allows a temporal aspect to the reflection typically ignored by other taxonomies. In this regard it is similar to the Success Case Method of Brinkerhoff (2003). However, taking this exploratory qualitative approach puts the person at the heart of the evaluation rather than attempting to link to (and evidence) organisational impact. This different focus could be viewed as more important given the nature of the participants and their expectations.

4.4. Method of facilitating project management training

Method was developed to provide a lens through which to analyse the participants preferred mode of project management training delivery. The literature was split into two distinct areas: those that believed that all training in an academic setting should be delivered by those thoroughly conversant with the theory and should focus on developing reflectivity in the participant (Crawford *et al.*, 2006; Thomas & Mengel, 2008; Winter *et al.*, 2006); and those who contended that the

participants would be best served by instructors who were actively managing in the area (Edmonds, 2010; Pant & Baroudi, 2008).

It was inevitable that issues will surface in a study where the researcher is investigating training that he himself has delivered. When analysing the interviews it has been important to separate, where possible, objective information from opinionated conversation that could be viewed as solely complimentary and without impartiality. This becomes a particular concern in this section and subsequently in 'approach' when discussing the instructor. Every attempt has been made to maintain a detached viewpoint and consider primarily the information that is unbiased.

Overall, the interviews revealed that all the participants agreed that anybody delivering project management training should be an expert in the subject as well as actively involved in the role day-to-day. However, there were differences of opinion when it came to whether, for the training of university staff, the instructors should be internal or external to the organisation. This section considers three concerns that emerged from the review of the literature: whether participants have a preference for theoretically or practitioner-led training and what is the reasoning. Whether there a perceived increase in credibility leant to the learning as a result of it being practitioner-led. Third, whether participants value the rigour evident in many of the formal HEI offerings or have greater appreciation for the practicality more commonly offered by an external provider. To address these issues, the discussion has been divided in three: consideration of instructors with practical experience (regardless of area of work); consideration of credibility; and the debate between internal or external facilitation.

4.4.1. Perceptions about the perceived value of facilitator practical experience

From both the literature and researcher experience, the level of practical experience required in a subject in order to be able to deliver valuable training is a divergent position: those from an academic background tend to argue that learning is best delivered by those who have fully researched the area, with practitioners countering that for such a ‘hands-on’ subject as project management, practical experience is essential.

The section on ‘importance’ began to develop a theme of linking training with current and future job role, and early in the discussion Jane began by commenting on the value of having an experienced project manager instructing the class:

You obviously have used these things and it wasn't like you've been on a training course and you've come to tell us how, you're not just reading from a book. And that really shone through to me that it was you, we were learning from your experience and that's the greatest thing you can. First of all you learn from experience yourself. I mean that's the best learning, but learning off someone who knows what they're talking about and has been out there and they're not just a teacher as it were, and they've learned, read it off a book themselves and regurgitated it. Other ones that I've been to were given by people in-house and I sit there and go, "you know about a little bit more than me and you're telling me, you're trying to teach me this". (Jane, Research Grant Manager - Nutrition and health)

She comments that she believes learning from experience, from somebody who has actually performed the job, is superior to simply examining techniques and theories in isolation. This supports the conviction of many practitioners that experience is a necessary prerequisite for performing training in this area (Teplitz, 2001). Jane contrasts this to other events she has attended given by “*in-house*” trainers however, in this context, her statement is a reflection on the experience of the facilitator rather than a contribution to the internal v external facilitator discussion of the final sub-section.

She further highlights that the ability to answer questions with anecdotes and examples of experience enhanced the believability of the instructor as a subject matter expert. It gave context and depth to the subject rather being a recitation of a text book and the stories and situations added colour. The excerpts in the following sub-sections show that the preference for an instructor with practical experience was a view endorsed by all of the participants.

<p><u>Key findings:</u> The participants place a high value on the facilitator having practical experience of project management mainly because the expertise brought by performing the job is perceived to be far greater than simply having an understanding of the subject matter.</p>

4.4.2. Participant perceptions of instructor credibility

The evidence indicates that gaining the confidence and trust of the participants through a demonstration of experience is regarded positively by participants. However, Stuart mentioned that this also increased the perceived integrity of the instructor:

You were very careful in terms of client confidentiality, you never talked about any specifics of any projects that you've worked on,

or things like that, but you were able to get the confidence of the audience based on the fact that you had actually done project management as opposed to you had read the book and were now re-churning it out, or you'd read a lot of, you know, papers on project management. The fact that you were a project manager and that you had that practical experience in a non-specific way you were able to share some of that experience, which I think is important to have (Stuart, Research Officer; Honorary Lecturer; PhD Student - Veterinary science)

Stuart makes reference to practical experience playing a major role in the credibility of a trainer rather than solely informed teaching (for example, having read the subject but never performed). The subject of commercial trainer credibility is an area almost barren of research (Hassi *et al.*, 2011) with only Renwick (2004) providing any framework which focuses primarily on objective attributes (for example: nationality, age, qualifications and professional skills). However, perceived competence emerged as a key facet in determining individual credibility from the work of both Kouzes & Posner (2005) and Hassi *et al.* (2011). This is supported by both Jane and Stuart's assertions that the sharing of experience played a central role in establishing the instructor's integrity and authority which, in turn, establishes the importance of the topic of project management to the participant. This perceived importance of subject matter, in turn, suggests value to the participant.

In the training courses examined in this study, the instructor does have the practical experience and draws on genuine situations to enhance the learning experience, however it could raise the question as to whether practical experience

is actually necessary. Another key category in building instructor credibility is “perceived competence and perceived confidence” (Hassi *et al.*, 2011, p515). Perhaps simply giving the impression of a vast catalogue of work experience is sufficient for a trainer to be believable. There are certainly professional trainers who do adopt the approach of presenting false stories with sincerity, but as Jane said previously, attendees “*see through that pretty quickly*”. Delivering training courses within a university setting, attendees are familiar with learning and knowledge transfer and it would be difficult to maintain any form of pretence for a sustained period. This does however also begin to link to the argument that some presenters put style over substance and use personality to leverage positive reactions from participants rather than delivering ‘real learning’ (Michalski & Cousins, 2000; Warr & Bunce, 1995). The notion of being influenced by the instructor’s personality was touched on by several of the participants in their interviews but was addressed most explicitly by John.

For me, it's not about personality. Well, alright, some of it might be personality; I don't think it is personality. I would like to be assured that the person that does the training has a suitable number of years' experience working...doing what they're talking about. It's the same with quality training. If I saw some 20 year old that is giving me training and they're still wet behind the ears, it would be very difficult. It doesn't matter where they come from, they could be in the University [or] coming from outside, it doesn't matter. I suppose [it is] the integrity of the trainer in terms of their experience and their background. So it's that. When you tell me you've been doing, you know, project management for X

number of years, I believe you! (John, Quality Manager - Nutrition and health)

Like John, many of the participants commented on the use of and reference to experience in the delivery style of the instructor and that they felt it had made the training more valuable. However, they also agreed with John that the personality of the facilitator, whilst helpful, was ultimately unimportant in assessing the value delivered by a course. This is extremely interesting as researcher experience would suggest otherwise: that if an attendee takes a dislike to the style of a presenter the evaluations and feedback suffer. Diamantidis & Chatzoglou (2012, p906) assert that, along with the process of the training, “trainer performance” has the largest impact on participant perception of value. This lack of acknowledgement by participants could be explained by the fact that only those attendees who viewed the training as a positive, beneficial experience would continue to the end of the programme so perhaps implicitly they enjoyed the teaching style of the instructor. So it could be argued that in this respect the views in this study only represent a positive perception.

However, another question is why were some of the participants so resistant to the idea that personality could affect their judgements, especially as researcher experience indicates it to be the case? Experienced trainers would argue that they could teach the same material using the same methods to a class and get outstanding feedback but the next time have ‘an off day’ where they are perhaps tired and they would not receive such a high rating. If all other elements remain the same, then it might suggest that personality plays a strong role in shaping attendees opinions of value in a training setting and concurs with Torbeck (2010). Although this opinion is at odds with some of the dominant research in this area

(Alliger *et al.*, 1997; Colquitt *et al.*, 2000) which predicts only a weak relationship between participant reactions and actual learning, it is supporting more recent studies that rate reaction as being a strong influencer when considering learning (Velada & Caetano, 2007).

The reluctance to admit that personality is an influencing factor could come from wishing to appear objective and unswayed by emotion. John was the only participant who considered the influence of personality may have an effect on training evaluation but only in a specific example:

It's very difficult to separate [the perceived value of training] from personalities because, obviously, I've undergone the training as you've delivered it. I am aware of a project manager within the University that has been involved in a couple of projects. And, for example, if that person ran the training I'm not sure I'd be able to take them seriously. But that's very specific. I can't tell, you know, kind of broader context whether that would hold true
((John, Quality Manager - Nutrition and health))

Some participants (especially Karen, Hannah and Liam) were quite indignant when it was suggested that instructor personality could have some influencing effect on them. This may be due in part to the nature of their work: they are experienced university staff who probably pride themselves on their ability to think critically and objectively appraise situations. It is also contended that people do not like to think that personality has influenced their judgements as they could feel as though they have been deceived into believing in a concept (for example, the popular perception of the snake-oil salesman).

Even though it was denied during the interviews, the personality of the instructor having a bearing on the memories of the participants was implicitly acknowledged through their complimentary comments about teaching approach, delivery style and class management. Doing an activity with somebody respected or admired is, with reflection, going to be viewed more positively than the same activity with someone who is not as well respected (Iglesias & Salgado, 2012). Similarly to the section on ‘importance’, it could be suggested that memories of events could grow stronger and be enforced more positively after subsequent courses as the relationship with the facilitator grows (Audhesh & Joyce, 2002). Any link here is difficult to demonstrate as it was denied by the participants, however the conversational, two-phase interview method allowed interrogation of this area and, as Roseman (2006) highlighted, sometimes the most interesting parts of an interview are those either deliberately avoided or vehemently denied.

In the first extract from John, he also mentions that facilitators of practical subjects such as project management should be experienced practitioners in the given subject. This is a recurring theme through many of the participant interviews and supports Edmonds (2010), Loo (1996), Pant & Baroudi (2008) and Teplitz (2001). However he tempered his opinion with the statement that it was largely inconsequential where the experience had been garnered (university or industry) the key factor was having actually performed the job.

Key findings: The evidence indicates that a project management training instructor may be afforded greater credibility if they demonstrate practical experience in the field. Whether this needs to be real or not is difficult to identify as, contrary to modern literature, participants claim to be unaffected by reactions to personality.

4.4.3. Perceived difference between internally and external accumulated experience

Although the participants in the study were unanimous that for such a practical subject as project management the instructor should have actual experience in the field, there remains a debate as to whether that experience should have been accrued internally or externally to the organisation. For courses delivered within a university setting, there is a discussion as to whether the experience needs to be external to the institution or if having been a project manager within the university setting is preferable to participants. This is not a debate as to which type of facilitator delivers the best courses, simply an exploration of whether attendees place any additional value on where the instructor comes from.

Most of the participants believed that in addition to the experience discussed earlier, being in an environment other than just the university had major benefits to the attendees as they had a broader contextual base for the learning. However, this is tempered with the view that if the purpose of the training was to focus on internal procedures and processes then an internal resource may be better equipped. This sub-section will explore both of these points of view. Stuart was asked to discuss any other courses he had attended:

We have so many poxy in-house courses. I think that [being external] is important and one of the reasons I can say that with my hand on my heart is (and this isn't to give myself a big head!) but the students like me as a visiting lecturer because I'm a vet, or I'm a veterinary research officer, I'm not an academic working in [the University] just purely in research. You could come from a

university management department and it'd be quite different than if you were a project manager who has got active experience of working on different [projects] (Stuart, Research Officer; Honorary Lecturer; PhD Student - Veterinary science)

From this extract (and his earlier comments about experience), Stuart was insistent that for training in a subject such as project management, an external perspective was extremely valuable. He recalled his own personal experience as a visiting lecturer and subsequently expanded on the value he thought his students got by being tutored by somebody who was 'living the subject' day to day. He was dismissive of many internally facilitated courses he had attended in both university and public sector organisations claiming that many were, in his view, only to demonstrate that the organisation was providing staff development opportunities but contained no real value. He continued that, unlike veterinary training, for project management the experience did not need to be contextually similar to the work environment of the attendees because of the subject's transferable nature (Bakker *et al.*, 2011; Loo, 1996; PMI, 2011; Wearne, 2008; Wirth, 1996) and regardless of the specialist area any training should support that. This point was also strongly endorsed by Emma:

There is immense value in it being run by someone external to academia, because, I think, that's exactly what it needs. That allows for the focus to be somewhat on the post graduate experience, but also to be on things outside of the post graduate experience. I think if it were run by someone in academia it would be overwhelmingly academic in focus [and] I don't think it needed to be more academically focused than it was.

While it's useful to have someone with inside knowledge of [the university], most of the information that you would like to have about [the University] you can find somewhere - it's not really that it's not available. Whereas, it's good to think outside one's institution and you don't really get that when you're being taught by someone in the institution. It tends to be very institution focused and so, I think, the neutrality and perspective that comes from someone coming up from outside the university is valuable.

[One programme I was involved in] had a very negative response to having only [University] people conduct the training courses because [the participants] felt like they were only being preached to about projects and initiatives and experiences that were from [that university]. They thought that it was too insular, or too institutionally focused, [with no] neutrality and variety of information (Emma, Postgraduate Research Student - Music)

Emma proposes that an external event facilitator may be able to provide a more rounded and holistic view rather than focusing on one particular sphere (in this case, university research). She implies that some degree of linkage is required to the current role of the attendee but it does not need to be excessively focused in this area. She argues that much of the information that would be specific to an institution is readily available and the value of a training course run by someone external is the difference in perspective, approach, outlook and experience that they bring. She points to one researcher development programme that she was involved in creating and the negative response that was received from employing solely institutional speakers. This gave the impression to the attendees of a small,

parochial undertaking and, from the participants viewpoint, had only a tenuous link to the world outside the institution. The desire for broad experience begins to introduce the idea of using training to gain a wider perspective, not just limited to a particular discipline, and that external facilitators are perhaps better equipped to perform this as many of them work in a vast array of different environments (Hassi *et al.*, 2011; Kouzes & Posner, 2005).

The evidence from this study suggests that this external view point and neutrality is particularly useful to someone looking for a move out of academia, but is it the same for a career researcher? Natalie, an experienced researcher, considered this point in her interview:

My fear is people who are doing it internally, we very much shape on the things that we are doing. So my fear would be that we will talk about mainly research projects, research activities. And for me, it was really great that we hadn't thought about [other types of projects], because we know how the research projects are going, we see examples of our mentors or supervisors, so we have a feeling for that. But I think I did appreciate it, we had somebody external who we can really learn something new. (Natalie, Research Associate - Engineering tomography)

Natalie argues here that, regardless of position or discipline, it can be beneficial to learn from others. She believes there is a danger in relying too heavily on internal resources as it may encourage groups to become inward facing and repeating the mistakes of the past as there are no other points of reference. She states that she experienced real value in understanding a completely different perspective which

encouraged her to reflect on her own internal working practices. Interestingly, this point of view is at odds with one of the primary explanations of why external instructors are not used in certain institutions: that practitioners do not understand academia. This excuse is used despite reports from Vitae, the UK's researcher development organisation, stating that a top priority for university professional development departments should be to deliver "broader generic personal and professional skills that are transferable to a range of different career paths, within and beyond research" (Hunt *et al.*, 2010, p6).

One reason often cited by training and development managers for either using internal facilitators is that training should be explicitly linked through material and example to the current job role of attendees (Grossman & Salas, 2011). Experience indicates that using this approach frequently results into the class descending into debate about the politics and hierarchy of the organisation. This often distracts from the learning outcomes themselves rendering them ineffective as a learning tool, a position advocated by Boyett & Currie (2001). It also has the added advantage of being able to train a broad range of people simultaneously (Ellis *et al.*, 2005). The use of a generic training vehicle can provide the neutrality supported by Emma. The lack of the direct link between training examples and work was explicitly addressed by Jane:

I don't necessarily need that direct link. It can be more abstract or in a different sphere, but I can then apply that to my work myself. (Jane, Research Grant Manager - Nutrition and health)

She maintained that she was sufficiently capable and intelligent to be able to reflect on the learning outcomes and contextualise them within her own sphere of

experience. It contradicts the argument that attendees need to be spoon-fed scenarios that are directly related to their field of work. Emma, Jane and Natalie all express their preference for being able to make their own decisions as to the validity of the training and all valued the difference in perspective offered by an external trainer. The data indicates that one of the most important things they gained from the training courses was a change in perspective which could not be offered without somebody from outside the organisation. This contradicts the arguments of Crawford *et al.* (2006), Thomas & Mengel (2008) and Winter *et al.* (2006) who contended that project management was too complex to be taught as a simple generic skillset. Steph also rejects this contention and began by echoing Jane's statements that often internal trainers simply seemed a few pages further on in the book than the attendees

[The internal course facilitators] didn't have an awful lot beyond what you could go on a website and click and find out for yourself. Whereas people that come in that do it as their business, they often love what they're doing and we, I think, have a lot to learn from them. We don't necessarily just need people that have done research, although it helps if people have an appreciation for [it]. But then, I suppose so does every other workplace. So having other perspectives come in, it's not a bad thing. If it doesn't fit exactly with what you do, you try and take bits of it that will work, sometimes making what you do more like an industry setting might actually be more productive for you. (Steph, Post-doctoral researcher & laboratory manager - Microbiology)

Once again, Steph considers herself to be suitably experienced and intelligent to be able to extract the valuable techniques from a training session. She supports the discussion in the literature that contended that there should be a greater synergy between academia and practitioners (Giangreco *et al.*, 2010). When interviewed, Karen discussed the same topic but augmented the argument by stating that in certain areas and internal, specific focus may be preferable:

The training courses that I have liked the most is people that are not from the academia, that have the experience of the real world and they bring it to the university and they talk about specific things rather than talking about theories and books.

Interviewer: Why?

Maybe they don't have the experience, the people running them. Being an academic myself it's different when you teach someone about a theory that you've read, and it's different when I speak to someone about the work that I've done with pipeline industry for example and I did the particular project. So it's something real, it's not a theory, it's like talking about your experience, your real world experience. (Karen, Research Associate - Management)

Throughout her interview Karen discussed her preference for external facilitators as opposed to internally delivered training courses. This could be influenced by her role as a researcher in a project management group with close links to industry, meaning that she found the method of delivery more accessible. By making this statement she also makes the assumption that academia is not part of the “*real world*” and implies the archaic view of universities operating from ivory

towers. This point of view is contested during the training courses where the “*real world*” is used in reference to anybody’s working environment. However, Karen’s use of this language highlights the value in the cross-fertilisation of ideas between sectors and further strengthens the earlier argument that project management training needs to be transferable to many different environments (Bakker *et al.*, 2011; PMI, 2013; Qureshi *et al.*, 2009; Wearne, 2008) – a view reinforced by the testimonies of the participants of this study. The main contention in her argument was that the practical experience of the instructor was paramount for this type of training. This links strongly to the arguments earlier in this section. She implies, although did not expand, that for a different subject matter (for example theoretical teaching) an internal facilitator could be better equipped. Hannah reinforced this point of view by discussing a different course she had attended which had been run internally.

I think internally, in this case, worked because the trainers were good. But because we were able to talk quite freely amongst ourselves about issues that we had as managers, I think that was probably facilitated by being an internal trainer. Because she knew all of us and knew where we were situated, so she understood exactly when we were describing scenarios or whatever. Whereas an external person probably wouldn't have that type of [insight]. So in that sense I think it was probably quite effective. (Hannah, Assistant college registrar)

She argued that due to the subject of the course, which was strongly linked to university policies, an external facilitator would not have been as effective as they were not directly involved in the issues and scenarios being discussed in the

workshop. However, this strengthens the argument that the facilitator should be matched to the content, and reinforces that an instructor should have contextual experience in the area in which they are training. Alan mentioned similar considerations when asked if he believed if there were any differences to being instructed by internal or external resources:

I think having an external prospective and having, you know, the examples you gave, other projects like the European Space Agency and things like that, that are not specific to [the university], do help you get a bit more context of the real world aspect so I guess that element of it would be as a benefit of having an external. Internal? I guess, on the flipside you could say that having an internal person they could maybe tailor it more towards how [the University] works. But then would that be advantageous if you're thinking about it in a wider context and how you're wider career development? This is how [the university] does it but you go somewhere else and it's maybe [different]. (Alan, Senior Manufacturing Engineer - Collaborative Government-University-Industry Research Facility)

Like Hannah, Alan concludes that the purpose or the aim of the training course will have a large bearing on the best type of facilitator. An external instructor would provide a wider experience, but if organisational specifics are required than someone with institutional knowledge would be better. It was established that education was focused primarily on theories and concepts rather than applicable techniques which would be described as training (Garavan, 1997). Given this unanimous desire for applicability from the courses the suggestion that many of

the participants preferred external instructors is perhaps unsurprising. Facilitators internal to the university are working in an educational environment where the teaching is often surrounding principles and ideas so any training courses would be likely to be taught in a similar manner. Rather than being a criticism it is simply an observation that the courses become a product of the environment in which they are developed: in higher education they are more educationally focused, outside of an academic set-up they are more training in nature.

Key findings: The desired outcomes of the training course appear to have a strong influence the preferred type of facilitator. For project management the requirement for applicability suggests that an instructor with experience in different spheres can be beneficial in giving alternative approaches, outlooks and ideas.

‘Method’ has discussed the preferred mode of delivery of project management training courses and the key participant responses are summarised in Table 4.3.

Table 4.3: Key ‘method’ findings in relation to the literature

	Argument(s)	Key author(s)	Finding(s)
Themes from the literature	It is preferable for project management training facilitated by those with a robust theoretical grounding in the subject	<i>Crawford et al., 2006</i> <i>Thomas & Mengel, 2008</i> <i>Winter et al., 2006</i>	Not supported. Participants consider experience to be key in establishing instructor credibility
	Project Management training is best facilitated by experienced practitioners	<i>Edmonds, 2010</i> <i>Loo, 1996</i> <i>Pant & Baroudi, 2008</i> <i>Teplitz, 2001</i>	Supported. Experience gives the ability to contextualise and to consider the application of the learning
	The experience of practitioners lend credibility to the learning and enhance the perceived training value	<i>Hassi et al., 2011</i> <i>Kouzes & Posner, 2005</i>	Supported. The demonstration of practical experience through examples and anecdotes made participants feel that the training was more valuable than only theoretical learning

Emergent themes		Where the experience is accrued (internal or external to the organisation) is only relevant when also considered with the content of the course
		For project management training, facilitators external to an organisation are preferred as they provide an independent position and different perspective that can be learned from

The interviews with the participants indicate that they place a high value on the facilitator having practical experience of project management. This was predominantly due to their belief that the expertise brought by actually doing the job is far greater than simply having an understanding of the subject matter. This supports the contentions of Edmonds (2010) and Pant & Baroudi (2008), and contradicts Crawford *et al.* (2006), Thomas & Mengel (2008) and Winter *et al.* (2006). Most of the interviewees also stated an inclination towards a trainer external to the organisation as they have the ability to give provide a different, neutral perspective. However, this was accompanied by the caveat that internal involvement may be preferable if the aim of the training was to be institutionally-specific.

The evidence from the interviews demonstrates that participants place importance on external, impartial facilitators as long as the purpose of the course is to deliver transferable project management learning. This is a key finding for this study as it addresses the question of whether there is a perceived increase in credibility learnt to the learning as a result of it being practitioner-led. This element is not explicitly captured by any of the frameworks or taxonomies previously discussed in the literature. The notion of instructor credibility could be implied in the category of ‘reaction’ (Hamblin, 1974; Kirkpatrick & Kirkpatrick, 2006; Phillips, 2003; Warr

et al., 1970) but only when assessing the individual's response to the delivery of the course content. It is proposed here that consideration of the background, history and work experience of the facilitator in a project management training environment has a large influence on the perceived value of the training being delivered.

4.5. Purpose of conducting project management training

The category of 'purpose' developed as a means of grouping responses linked to the principle function of project management courses. In the literature review this began a discussion about the difference between education (theories and principles) and training (applicable tools) (Garavan, 1997) and which was most suitably aligned to the desired outcomes of project management courses.

The participants were resounding in their support of the position, that project management courses focus on teaching applicable, repeatable techniques that can be immediately utilised in a work environment (McDonald, 2010). This links back to the earlier findings that transferability and a connection to current or future roles were a priority for participants. As such, a desire to be provided with practical tools is unsurprising. Two interviewees stated that theoretical understanding was also helpful, though not essential, but only in a way that applied to their day-to-day job. Interestingly, several of those interviewed originally attended the training courses without the expectation to learn anything new but simply to gain affirmation that the tools they were currently using in the work were correct. To answer the concern of whether there is a preference for education and training in project management course participants, this section will

divide to address theoretical understanding followed by practical application. It concludes by discussing the emergent theme of affirmation and self-efficacy.

4.5.1. Perceived value of project management training focusing on theoretical understanding

When considering the purpose of project management training there is an argument that any learning should be underpinned by a solid understanding of the theory behind a subject (Thomas & Mengel, 2008). This study challenges that assertion, with participants stating they perceived greater value by focusing on applicable tools that could be taken into the workplace. Karen did comment on understanding the theory but only to allow her to converse more easily on the subject. When discussing how she valued a project management course she commented:

It's measuring whether you have improved or understood something. So before the course and after the course whether I understand what project charter [is]. When I was talking with other peers and fellow colleagues in the group, when they were using terminology I could understand it better. So it was educational for me as well, not only training with tools but education in using the vocabulary, the relevant vocabulary, because management of projects was a new thing for me. I don't usually go to a workshop and check it but in this particular workshop I have done that, I've gone back to the notes. (Karen, Research Associate - Management)

Being an academic, Karen recognises the differences between education and training and has an appreciation for both. She placed value on the educational component in terms of learning new vocabulary and terminology, however this was valuable because it could be applied in office discussions. From her point of view, even the elements that could be categorised as education are only valuable because of their direct link to the workplace. This echoes the balance of theory against practice advocated by Walker *et al.* (2008, p29) who state that project management research and learning should be “reflection on action and reflection in action”. This suggests that although there was a recognised benefit in understanding some of the theory in the subject area, this benefit was only realised by Karen through implementation in a practical setting. Alan made a similar comment that his primary route to understanding was through application, or learning by doing. Barry made a related point by expressing that he does not wish to be a project manager but having an appreciation of their role makes his job easier.

I would prefer the project manager takes on the management and structures it out for me. But then I don't want to be just dependant on them, I want to be able to look at their plans and understand what they're doing. But I don't want to do it myself! Now I see the value of it whenever you see an experienced project manager in action. (Barry, Engineer - Recent PhD graduate in SME supporting oil and gas industry)

Barry is looking for an understanding and an awareness of project management, however it is not the theories that are of interest but the practical aspects utilised by his project managers. Having a comprehension of the project management role

will make his job easier but will also relieve total reliance on the project manager. It may permit him a degree of independence in the workplace which could give him improved job performance. So, similarly to Karen, the understanding should have a tangible application. In this study, both these examples suggest a rejection that project management courses should be purely educational in focus but they should actually have a direct link to the working environment of the participant.

An important point to recognise is that these quotations have been made by considering the past through the lens of the present. This notion of reflection is one of the key influencing factors brought by conversational interviews to this study and highlighted in the methodology. It has allowed a degree of retrospection sometimes not possible without a longitudinal study. The conversational interview with its loosely structured guide permitted these statements to be compared and contrasted indicating its potential as a method of data collection when evaluating project management training.

<p><u>Key finding:</u> Although some participants desired project management understanding it was in order to be more effective in their current roles. For these participants, the understanding must be applicable. The majority perceived greater value in application.</p>
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4.5.2. Perceived value in the application of project management learning

Every participant without exception discussed the value of the training being linked and applied to current job role. Two representative quotes follow which summarise the notion of applicability as a theme present in all the interviews. When questioned about reasons for attending the training programme and the purpose of the course, Emma commented:

If I'm going to pay to be on a course, or spend a day, or two days, or three days solid working on a course, it better be pretty practical and pretty oriented to what I'm doing. (Emma, Postgraduate Research Student - Music)

She states in uncompromising language that the purpose of the course, for her, is to learn a work-related, applicable skillset supporting the arguments of Lochter (2013) and McDonald (2010). As an investment of time, she views training courses as a front-loading of effort: spending additional time in class upfront to save time and stress in the long term. This is a view repeated throughout the interviews that, due to its practical nature, the purpose of project management courses should be to provide applicable, transferable tools and techniques. This perception was reiterated by Natalie:

I think project management is quite practical and it's applied everywhere, you have to manage whatever you do. I mean, everything is a project - even cooking is a project. So that's why I think it needs to be practical. I attended a few [other workshops], but they were more - how to say - more informative. So some of them are, for example, about you getting an idea, what is this and that, how you should be doing it, but it's just a rough idea. And I think with this one, for me I would say it was better because, as I said, it's not only about getting an idea, you're also getting some tools. So that's I think invaluable. So this is for me the great value, because I know it will stay and I will learn some concept and be able later on to apply. (Natalie, Research Associate - Engineering tomography)

Natalie focuses on the ability to apply the course content and she uses this as a differentiating factor in comparisons with other courses. Some of this desire for applicability could come from the current job roles of the participants. Many are experienced researchers, and all work within a university setting, so have access to large amounts of information that can give them theoretical background on most topics. They are also familiar with data retrieval and reflection so possibly do not value “*informative*” courses so highly as the information is readily available to them elsewhere. What they find meaningful is the link to their current jobs and using the experience of an active project manager to demonstrate techniques and tools which is something that cannot be accessed in a library (Kwak & Anbari, 2009; Vermeulen, 2007). This continues the thread running through the interviews that the participants placed importance on the linkage to current role and felt this was optimally achieved by using an experience, external trainer focusing on applicable skills.

Key finding: Being able to apply the learning is crucial to the participants of this study. It is not enough to simply learn technique, it has to be a skillset that can be applied in the workplace.

4.5.3. Improved self-efficacy or affirmation through a training course

The construct of self-efficacy is defined as the belief in one’s own capabilities (Sadler-Smith, 2006): the confidence and motivation to take a course of action to complete a chosen task in a particular field. For most of those interviewed in this study increased confidence was not a primary reason for attending the training courses, although it was an unexpected by-product for many. While self-efficacy has been widely studied and identified as key factor in leading to improved learning (Salas & Cannon-Bowers, 2001), it has largely been viewed from the

perspective of building confidence in an individual's ability to use new skills rather building confidence in existing, and sometimes unrecognised, competencies which is the case in this study.

While all the participants maintained that the purpose of project management courses should be about improving efficiency in the workplace, there were differences as to how the learning would be used. For some, like Liam, it was about learning a formalised method of performing their current role but it also provided the unanticipated affirmation of their working practises.

The first [course] gave me the terminology for things quite often that I knew already. So things I was doing day-to-day, because I was project manager, it gave me a structure to what I was doing already. So on my desk was post-it notes everywhere. There was bits of paper, there were to-do lists, everything else. What I hadn't realised was actually that's fair game, and that is one way of rationalising what you're doing. (Liam, Project Manager of a large European research programme - Bio-chemistry)

Liam had been in a project management role and attended the course to improve his ability to perform that role. Like Karen, he learned some of the specific terminology surrounding the subject, however in addition to learning new methods one of the key benefits to him was affirmation that what he was doing was correct. Often in organisations people are promoted on an ability that is different to the skillset need to perform the new role (Ladyshevsky & Flavell, 2011). This agrees with the much cited concept of the “accidental project manager” (Pinto & Kharbanda, 1995, p41). Liam was a bench chemist, however

the skills required to be a good chemist and to be a good project manager are markedly different and experience shows there is often a substantial lag in getting suitable training for the new role (Madter *et al.*, 2012). Although he attended the training in order to develop a new set of competencies, Liam discovered that he had many of the foundations existing already due to his role so he experienced increased confidence through the affirmation that he was already performing the job well.

Improved self-efficacy linked to current role was also relevant to Alan, but in the form of external confirmation that he could perform his job.

I've been doing project management for quite a long time now and I think it's something that I'd like to have formal recognition of so that I could say well I've got this qualification. (Alan, Senior Manufacturing Engineer - Collaborative Government-University-Industry Research Facility)

Alan had been performing in a project management capacity for several years but wanted something tangible to demonstrate his ability. He attended the training programme for verification that the tools he was using were appropriate and with the hope that he would learn additional techniques to implement. But even more important to him was the professional qualification that could be gained by successfully passing the exam. Working closely with industry, simply stating that he was a project manager was not sufficient to foster confidence in his abilities. So, for Alan, the affirmation came from getting the qualification. Improved confidence is a term that began to appear regularly in the interviews, most

frequently linked to increased self-confidence. Jane explicitly addresses this point and discusses the self-assurance she gained from affirmation.

I didn't have anything, any proof that I knew the theory behind project management. So like I said, the more I learn about it, I realise that I'm kind of doing those processes already, I just don't have a title to it. But sometimes obviously you learn other things that you completely didn't know about and it makes your life so much easier. A lot of the time you have affirmation in terms of what you're already doing so it, sort of, it boosts your confidence.

(Jane, Research Grant Manager - Nutrition and health)

Like Liam and Alan, Jane had been in a management role for some time and the course gave structure to tasks she was already performing as well as augmenting her skillset. An idea that was revisited several times in her interviews was the increased self-confidence gained from the instructor confirming that the activities she was performing were correct. This is something of a surprise, for when designing a training course the focus is often on delivering confidence in new skills but the fact that attendees take positive reinforcement from external verification of existing skills is often not considered. Improved confidence is alluded to, but not dealt with explicitly, in several of the existing evaluation frameworks: 'reaction' in Hamblin (1974), Kirkpatrick & Kirkpatrick (2006) and Warr *et al.* (1970); 'change in attitudes' in Bramley (1991); and 'self' in Passmore & Velez (2012). However, where it is implied in these taxonomies it is relating to confidence in newly acquired skills not existing ones. The comments from these interviews suggest that addressing a change in confidence of already present

competences could be included as a valid category in a project management training evaluation framework.

All these examples suggest that, while Liam, Alan and Jane were seeking affirmation, the purpose of the training ultimately tied back to their work. This strongly echoes the key points to emerge from the 'importance' section which proposed that linkage to current role was a strong motivator for course attendance. What is most interesting, however, is the notion that the affirmation of existing skills can result in increased confidence and self-belief. Any existing frameworks that make reference to confidence link it to new skills but perhaps it should also be considered in light of existing abilities.

Key finding: In project management training evaluation, self-efficacy may include existing skillsets that are affirmed during the training not solely new skillset learned during a programme.

To summarise this section, the evidence suggests that the manner in which participants view the purpose of a project management training courses can be divided into three categories: to gain an understanding of the subject on the condition that the learning can be used practically; to learn a new applicable skillset; or for affirmation of current work practises and increased self-efficacy in existing competencies. The arguments raised in the literature review and participant responses are summarised in Table 4.4. The debate in the literature that project management courses should be educational in nature focusing most strongly on understanding (Thomas & Mengel, 2008) was disputed in these interviews. Those participants who did benefit from greater understanding did so within the context of how they would apply that understanding directly to their jobs. There was unanimous agreement that the ultimate purpose should not be to

provide theories and general principles, but deliver a set of tools and techniques that can be applied immediately to the workplace which supports the contentions of Aguinis *et al.* (2011) and McDonald (2010). From their point of view, becoming the derided “trained technician” (Crawford *et al.*, 2006, p722) actually had real value to participants with low existing levels of project management experience or knowledge (Egginton, 2010). This continues the theme of these findings that having the capacity to utilise any learning in a work place situation is of paramount importance to participants and this is where they realise value.

The emergent theme of affirmation and self-efficacy was extremely interesting as it highlighted a concept missing from the existing frameworks: improved self-confidence in an already existing skillset. For a transferable subject such as project management where many people attend courses already having some baseline knowledge, consideration of the assessment of improved self-assurance may be appropriate. The emergence of an unexpected affect such as this, strengthens the argument that project management training evaluation should not be purely goal-driven (Brinkerhoff, 2003) as it may fail to acknowledge unanticipated side effects. The evidence also suggests that focusing solely on organisational impact can miss relevant information. Affirmation leading to increased confidence may not display any tangible organisational change, however the self-efficacy of the participant has increased.

The data from this research suggests that people do not attend project management courses to learn about project management, they attend to become better at their jobs. The majority of the evaluation frameworks referenced in the review of the literature consider the notion of application: ‘behaviour’ (Hamblin,

1974; Kirkpatrick & Kirkpatrick, 2006), ‘outcome’ (Easterby-Smith, 1994; Warr *et al.*, 1970) and ‘application’ (Phillips, 2003).

Table 4.4: Key ‘purpose’ findings in relation to the literature

	Argument(s)	Key author(s)	Finding(s)
Themes from the literature	Project Management training outcomes should deliver thorough subject understanding	<i>Thomas & Mengel, 2008</i>	Not supported. Purpose of PM training should be to provide tools and techniques to implement in the workplace. All learning must have a practical application
	Project Management training outcomes should focus on workplace applicability	<i>Locht, 2013</i> <i>McDonald, 2010</i> <i>Stoyan, 2008</i>	Supported. Candidates were unanimous that the learning has to be able to be applied to their work environment
Emergent themes			Many participants experienced increased self-efficacy in existing skills but traditional evaluation frameworks only focus on new skills
			Attendees do not attend training to learn specifically about a subject, they want to become better at their job

While training transfer and applied learning is discussed in each of these cases, it is only when purpose of the training is clearly understood that the link to application be optimised by delivering precisely what the participant is needing. Failure to consider whether a training intervention will transfer to job could result in a negative evaluation regardless of the quality of the material and delivery. Therefore, it is posited that purpose should be a key consideration when designing and delivering project management training course, particularly in a university environment. It provides another indication that a specific project management training evaluation model or framework may be desirable.

4.6. Approach to delivering project management training

The category of ‘approach’ was developed from the literature to cover the discussions pertaining to the different styles and level of detail adopted when designing project management training courses. This produced the concern of whether attendees perceive greater value in a practice-led or theoretically-based approach to the subject matter

In their responses, the participants of this study continue to argue the need for project management training to deliver an applicable skillset. Contrary to the literature (Ojiako *et al.*, 2011; Thomas & Mengel, 2008; Zhang & Xu, 2008), several participants commented on the value of linking the training to common methodologies and many of the interviews discussed the value in adopting a simple, applicable approach to the subject matter (Barron, 2005; Córdoba & Piki, 2012; Edmonds, 2010). This section is sub-divided into two areas covering these viewpoints: the degree of linkage to the professional bodies of knowledge in practice-led courses; and, the complexity of the delivery required from theoretically-based delivery.

4.6.1. Perceptions of using professional methodologies as the basis of practice-led courses

As the training programme was designed to deliver a skillset transferable to any working environment, only one of the courses within the scope of this study is specifically aligned to a particular project management methodology (the Certified Associate in Project Management (CAPM) Exam Preparation course). It is this final course that is directly related to learning the PMI’s Project Management Body Of Knowledge methodology (PMI, 2013b) to enable

participants to achieve a professional accreditation. Nevertheless, several of the participants valued the references to various popular frameworks throughout the courses. Alan discussed that understanding of common frameworks, and having a standardised approach and terminology, was paying dividends in his organisation.

A lot of people would say that they can manage projects but having a recognised way of managing projects is a different thing because, you know, you speak to one guy and say, “yeah, I manage projects and I’m a project manager”, he might do it completely different to what you do. But if you say, “well, I’ve got a CAPM”, instantly somebody would say, “oh, I know how you would manage a project”, and they can see how that would fit within your organisation.

An example of that would be the Project Management In The Real World course that you ran in here. [One member of my team], who you know, immediately it made a benefit and impact on his way of working. I wouldn’t say he didn’t know how to do the process beforehand but formalising the trial helped him and immediately his project planning process was, I wouldn’t say better (I don’t like saying better because there was nothing wrong with it) but it’s more formal and more in line with what we had expected which is fantastic. That’s an immediate impact. (Alan, Senior Manufacturing Engineer - Collaborative Government-University-Industry Research Facility)

First, he alludes to the notion that many project managers have different approaches to planning and delivering projects. This should not be surprising given that all projects are different in nature (PMI, 2013b). Therefore, it could also support the argument that working in such a unique and different environment for each project eliminates the requirement for the standardised frameworks that professional methodologies provide (Crawford *et al.*, 2006; Ojiako *et al.*, 2011; Thomas & Mengel, 2008; Winter *et al.*, 2006). However, Alan's contention is that a common approach is beneficial across both projects and organisations. His example demonstrates that having a standardised approach to delivery assisted even experienced project managers by allowing them to fulfil senior management expectations. Without some form of project governance, expectations are unclear at all levels of an organisation. This similar approach, albeit tailored for the specifics of the project, allows a greater understanding of the way in which the project will be delivered which, in turn, gives increased confidence in delivery. Emma also considered the understanding of a commonly used framework to be of benefit to her in terms of communication.

On a very basic level, I really appreciate training that has the producer objective (results or certification) because I find that's easiest to carry on with you through your career and it's the thing that tends to be the most valuable to employers and colleagues.

(Emma, Postgraduate Research Student - Music)

Although less experienced and earlier in her career than Alan, Emma believes that being able to demonstrate an understanding of standardised practises delivers value to her potential employers and co-workers. This links closely to the desire for better trained project managers entering the workplace (Golovushkina &

Milligan, 2013; Rae, 2010; Stoyan, 2008). She also appreciated having a tangible output at the end, the CAPM certificate in this case, which showed a certain level of achievement. This could be partially due to her upbringing in an American education system which, she believes, perhaps places higher value on test scores and certificates than some European countries. However, in order to examine and, therefore, compare individuals some form of standard assessment criteria is required which links back to the common approaches of the professional project management bodies. Liam mentioned professional accreditations but from a different perspective, focusing not on their intrinsic value but the confidence they fostered:

Did it help me regards people being able to bluff me? Certainly. Because prior to your course I thought people that were PRINCE2 qualified for example were... I thought it was like doing a PhD, and it's not. It demystified the whole process, that's probably the best way of saying it. It demystified the whole process management, language, terminology and jargon. (Liam, Project Manager of a large European research programme - Bio-chemistry)

As stated previously, the courses are not aligned to any specific framework although reference is made throughout the events to popular management approaches, one such being PRINCE2 (OGC, 2005). Liam was aware of this methodology but by discussing common methodologies, even only rarely, gave him a clearer understanding of the processes that project managers he interacted with adopted. The other interesting point from this extract is that he originally compared a PRINCE2 accreditation to a PhD however, having understood project

management and with an appreciation of some common approaches, he realised that it is relatively straight forward.

Key finding: Reference to popular project management methodologies is valued as they provides a common language and a standardised approach to considering projects. However, teaching a methodology is not teaching how to manage a project, and the participants want to retain the transferable aspect of the learning often not as accessible through training solely focused on a particular framework.

4.6.2. Level of complexity for theoretically-based delivery

A further debate identified in the literature was the level of complexity that a project management course should deliver. Some argue that it needs to be complicated to appropriately reflect the complex working environment that organisations operate in (Zhang & Xu, 2008), while others contend that it should focus on the tools that experienced practitioners use to improve their project efficiency, regardless of level of simplicity (Vermeulen, 2007). The participants in this study agreed with the latter proposition and that value is found in the applicability rather than the complexity of the topics.

What you teach is very practical, very hands-on. Dare I say, common sense. But not everyone has common sense. But for me personally, most of it I know already, I just didn't quite realise I knew it. (Liam, Project Manager of a large European research programme - Bio-chemistry)

Liam revisits a number of the important concepts already identified in the section on ‘purpose’, namely the value found in being able to apply techniques and also the affirmation achieved by recognition, or clarification, of an existing skillset. Where he expands is discussing the lack of complexity of the subject (Economist

Intelligence Unit, 2009). He calls it common sense, however it is only common sense to those with experience. This mention of simplicity and common sense was also reiterated by Barry, Cara, Hannah, Karen, Natalie, Steph and Stuart. It could be suggested that having experience of a project environment in any setting would make it easier to identify uses for the techniques and gives the participant some baseline on which to reflect. Perhaps they seem obvious to Liam simply because of experience in the field but, even so, he still found it valuable. Michael compared the project management training to a previous experience:

I don't if I've had any other external people coming in for courses.

I don't think so. I've done a few internal courses but they went into so much detail about it and how you would act in the new situation and all this, and you are like, "I've got to get to that stage first!" (Michael, Postgraduate Research Student - Space and aeronautical engineering)

Once again, this statement echoes some elements of the 'method' section discussion around internal v external facilitators. However, it is included here to consider the level of complexity desired. Michael had previous experience of other courses where a large degree of detailed information was conveyed and, from his point of view, this became too complicated. Whilst potentially useful, he questions its value as he does not have the ability to apply it to his current position (McDonald, 2010). This raises a very interesting perspective for this project. For all of the participants in this study it is the first time they have received any formal project management training, resultantly their relative inexperience in this subject may contribute to their preference for simple, applicable and practical techniques. However, even those participants in project manager positions believed they

benefited from the training which perhaps refutes this suggestion. Although the vast majority of the literature supporting the notion of complex training refers to project management courses holistically, perhaps this consideration indicates that the level of prior experience of the attendee plays a significant role in where to pitch the material. From the discussion around ‘importance’ and from experience, many people attend management training courses to gain skills which they feel they do not currently possess (Locht, 2013). Potentially, for these participants a simpler, more applicable approach is desirable – ultimately, the majority do not wish to become full time project managers.

This returns to the contention that the identification of the purpose of the training and importance of it as viewed by the attendee are central to establishing training value. It could be contended that the real problem in project management training is the lack of distinction of experience levels between of participants and that trying to satisfy every participant with one programme is simply not possible. These differences are not clearly defined in the literature and this could contribute to this divergent debate about the type of project management course. Considering importance, method and purpose during course design could perhaps be a more suitable manner of analysing project management course requirements than solely creating a generic model.

<p><u>Key finding:</u> The participants state that the content of a project management training course does not need to be complex nor particularly challenging. It should, however, be applicable to the work environment.</p>

To summarise, the primary arguments to be explored (Table 4.5) were whether practitioner-led project management training was overly simplistic and too closely aligned to specific methodologies. This was opposed by the contention that

theoretically-based courses were too complex for the majority of attendees. Contrary to the arguments of many authors (Crawford *et al.*, 2006; Thomas & Mengel, 2008; Zhang & Xu, 2008), the participants at these events appreciated a link to commonly used project management frameworks. This assertion, however, should be qualified with the proviso that the training investigated in this study was not designed to teach a specific methodology: it merely drew on several as points of reference. As a result, it could be posited that alluding to standard approaches is appreciated, as displayed in the comments of the participants, but aligning too closely fails to deliver a completely transferable skillset which was desirable to all.

There is very little in the current evaluation frameworks that address this type of approach when assessing a training course. Easterby-Smith (1994) and Warr *et al.* (1970) discuss ‘inputs’ as a method of considering these types of factors but, again, they do not emphasise the importance to the individual of the approach taken in design or delivery of the training. If, as this study indicates, the style and substance of the course has such a strong bearing on perceived value for a participant, then perhaps project management training evaluation should appraise it separately.

The main concern to emerge for this study was whether project management training should be practice-led or theoretically based. The participants were unanimously in favour of practicality, regardless of setting or facilitator. This was primarily due to their current position and career aspirations, which raises the additional question that for a full-time project manager greater complexity and detail may be required to satisfy their additional demands.

Table 4.5: Key ‘approach’ findings in relation to the literature

	Argument(s)	Key author(s)	Finding(s)
Themes from the literature	Project Management training is ineffectual due to its simplicity Project Management is based too heavily on professional bodies of knowledge	<i>Ojiako et al., 2011</i> <i>Thomas & Mengel, 2008</i> <i>Zhang & Xu, 2008</i>	Unclear. As the candidates were looking for an applicable skillset they appreciated a lack of complexity. They valued a link to existing frameworks but may not have enjoyed a course solely dedicated to one specific model.
	Project Management technique is not complex, so training reflects this. Project Management should be based on the tools used by practitioners	<i>Barron (2005)</i> <i>Córdoba & Piki (2011)</i> <i>Edmonds (2010)</i>	Supported. Candidates were unanimous that the learning has to be able to be applied to their work environment as most attend to improve workplace efficiency
Emergent themes			The majority of participants attended to increase their ability to work effectively and efficiently rather than to become project managers or learn specifically about project management

However, in this study the vast majority of the participants attending project management training courses have no desire or inclination to become project managers. They attended to improve their ability to deliver their work efficiently, to be able to report information more objectively and to gain a better understanding of how the information they provide is used by management. As such, attendees are perhaps looking for relatively simple tools that will allow them to work more effectively and, therefore, spend time on the tasks that are of real importance – which, to most, is not project managing.

Focusing solely on the organisational impact of training, as is at the core of the majority of existing evaluation frameworks (Bramley, 1991; Easterby-Smith, 1994; Hamblin, 1974; Kirkpatrick & Kirkpatrick, 2006; Phillips, 2003; Warr *et al.*, 1970). For the participants of this study that appears to be unnecessary and delivers little value for project management training evaluation as the majority are

not in project management positions. The data from this study indicates that it may be better for project management training evaluation framework to focus on the individual and whatever their specific uses of the learning turned out to be.

4.7. Content of the project management training course

‘Content’ was created as a category to consider the material used in the training courses and two main concerns developed: whether participants have a preference for application or theory in the course material; and, whether they hold strong opinions on the linkage of material to their specific work environments or are they satisfied with generic content. To address these issues, the introduction of practical exercises into the training environment is considered in the first subsection before latterly investigating whether these exercises should be specifically tailored to attendee role or position.

4.7.1. Perceived value in hands-on exercises to enhance practicality of training course

All of the participants believed that their learning experience was enhanced by the ability to apply techniques during the training events. It was the use of exercises and case studies that solidified the skills rather than relying solely on the lecture. Emma discussed that she was capable of reading and digesting information given in lectures, books or papers but in order to embed the learning she required to be able to practically apply it.

I really like training that does not just goes over the material, maybe in a lecture or a reading format, but also has practical exercises. Because, like most people who have actually made it through secondary school, I'm able to absorb some information

from lectures and readings but it never really sticks or sinks in in any useful way until I've actually had to use it. Doing exercises, like we did in the training, on the board and working in groups to create outcomes, even if they're fake and made up outcomes, is really the only way I learn. [The practical aspects are] very, very valuable to me. (Emma, Postgraduate Research Student - Music)

One of the main points to emerge from this comment is that the subject of the exercises or case studies used is largely irrelevant to Emma. It is the opportunity to apply the learning that she finds particularly beneficial. This mirrors the early comments of Jane and Steph who suggested that at this stage of their careers as academics they had the ability to process and understand information without it being explicitly linked to the current job role (Divjak & Kukec, 2008). Emma believed that she had the ability to do that for herself and did not require an instructor to be so direct. This is supportive of the perception of project management being one of the major transferable skills in a work environment (Bakker *et al.*, 2011; Loo, 1996; PMI, 2011; Wearne, 2008; Wirth, 1996). Hannah also commented on her preference for a practical aspect in a training course.

I mean, you teach somebody to knit, and you can show them how to wrap the yarn and how to do the needles and everything, or they can read it in a book. But if they don't actually pick up the needles and try it then, it's not ever going to make any sense. It's not going to stick in their head. (Hannah, Assistant college registrar)

Using the analogy of knitting, Hannah explains that for a subject such as project management it is essential to have an appreciation of the practical aspects for it to make any sense. Like Emma, it is the practical elements that embed the teaching and allow her to take the skills from the course forward and apply them to her own work. Karen concurs and draws comparisons with other events she has attended.

Theoretical is what you get at workshops but when it's more practical, like the exercises that we did, that's something you remember. The brain remembers what you've done. It's not just another workshop – you've done something, you've met people, you've used tools and it's more memorable. (Karen, Research Associate - Management)

Karen considers the project management training to be more than “*just another workshop*” because of the applicable nature of the exercises and material. It reiterates the continued theme of the participants wanting project management courses to deliver tangible, applicable skills that can be utilised practically in the workplace. The comment also supports McDonald's (2010) contention that many current academic courses lack any realistic context on which to reflect the learning and that, for project management training, there is requirement for a strong practical element (Davies, 2000; Divjak & Kukec, 2008; Pant & Baroudi, 2008). Karen additionally begins to consider that this type of content and the manner in which the material was presented played a large role in aiding her memory of both the event and the new skills. The motivation and engagement gained from demonstrating applicability was commented on by several participants (Barry, Cara, Hannah, Jane, Karen and Stuart) and supports the

conclusion that practicality is key to generating interest and enthusiasm in a project management classroom (Ellis *et al.*, 2005; Mengel, 2008).

Key finding: A strong practical element is desirable in project management training courses to embed the learning and also to demonstrate applicability of ideas.

4.7.2. Linking the case study content to a specific role or area

Another theme that developed in the interviews as a result of discussing the exercises and case studies was the focus of the content. Regardless of role or position, the participants consider that a holistic view of project management is preferable to a course delivered specifically for one job.

Given the course content of your course, [group work] is absolutely essential. I mean, you're never going to be working on this subject alone. So if you can't work in group work in a made up project for a course, you certainly better not try and do it in real life.

It was also one of the few courses that was beyond the PhD. So more than just your life at [university] and how to live it, but something that was focused on not only enriching the post graduate experience, but also saying, "well, this will help you as you leave and it will help you figure out what to do after you leave" and I appreciated that aspect. (Emma, Postgraduate Research Student - Music)

Like the earlier quotations, Emma suggests that the exercises were of great benefit in reinforcing the learning. She expands on this notion by challenging that if

attendees struggled with the hypothetical group work in a training environment then they would have similar issues in a real life environment. Additionally, she reinforced the views that the training does not need to be explicitly linked to a particular role or responsibility. In her opinion, not focusing too heavily on a present position was of great benefit (Ellis *et al.*, 2005). This is reminiscent of the earlier discussion in ‘method’ where interviewees express their support for differing points of view and being able to use best practice from other working spheres to improve their own efficacy. Furthermore, her belief that the training was of use beyond her current situation once again supports the contentions of Bakker *et al.* (2011) and Wearne (2008) that project management is a highly transferable skill and should be taught to reflect its versatile nature. Additionally, with a group of participants of mixed abilities and from differing disciplines, bespoke, tailored material may not satisfy the entire class and rather than learning project management attendees first have to become familiar with the subject of the case study. Although somewhat stronger in his opinions, Barry was concurred with these propositions.

What university doesn't prepare you for [is] when you go into a real job what is expected of you, what you have to do. I would honestly say that project management isn't being taught properly at universities, I think it was a waste of time if I'm being honest. You've been taught to pass an exam not to apply it.

I found actually being taught project management properly, being encouraged to use the tools, actually using the tools, and one of the things was that we did examples. So [the case study exercise of] building a bridge for the Queen coming, for example, was one

of the things that stuck in my mind. Afterwards I took that away and I thought who would have thought there was so much to it, for something that was so simple. Now, it's not building a bridge, it's extending a rig in the North Sea. (Barry, Engineer - Recent PhD graduate in SME supporting oil and gas industry)

Barry based this assessment on his experience of attending project management modules as part of his undergraduate degree course and also the training delivered as part of this study. Quite clearly he is unimpressed with his degree module however, leaving his emotion aside, the points he makes are informative and supportive of the ideas developed in previous sections. He strongly supports the notion presented by Locht (2013) and McDonald (2010) that project management should be taught to be applied and that focusing too specifically on the theoretical aspects are ineffectual therefore dismissing the contentions of Thomas & Mengel (2008). Barry's point of view fails to consider whether the point of the university courses is education and understanding, rather than only application. However, it does highlight that he, like many students, are seeking a set of skills and competencies that will serve them throughout their future career and that links to employability are crucial (Golovushkina & Milligan, 2013; Rae, 2010; Stoyan, 2008). Moreover, the participants were unanimous that they were attending project management courses in order to improve their current ability to work efficiently or to enhance future career prospects. This close link to application is central to McDonald's (2010) proposition that there is a gap between theoretical management concepts and real life application which many educational courses do not bridge.

Key finding: Project management training does not need to be directly linked to a particular role and use of generic examples and case studies can be useful cognitive vehicles.

This section on ‘content’ addressed the key arguments and responses are summarised in Table 4.6. The data evident in this study supports the conclusions of Davies (2000), Divjak & Kukec (2008) and Pant & Baroudi (2008) who state that demonstrating application is crucial in a project management course. Although there was limited experience in the participant group of other academic project management courses, the few who had attended other courses expressed that they felt the content was often theoretically robust but with little applicable content. This agrees with the arguments of McDonald (2010), Ríos *et al.* (2010) and Vermeulen (2007). The participants found that their expectations were unfulfilled as they attended the courses to become more efficient in their own work, not specifically to become project managers.

The evidence in this study finds that consideration of the content to be vital with the participants again expressed a strong preference for applicability of material. They highlighted that they perceived there to be real value in not only discussing techniques but having the opportunity to apply them within a training environment. It could be argued that the people who completed the training programme, and therefore are eligible for this study, are only those who found benefit in the training and would perhaps have a preference for this style of content and delivery.

Table 4.6: Key ‘content’ findings in relation to the literature

	Argument(s)	Key author(s)	Finding(s)
Themes from the literature	Many academic project management programmes are theoretically rigorous but lack ‘real world’ applicability	<i>McDonald, 2010</i> <i>Ríos et al., 2010</i> <i>Vermeulen, 2007</i>	Supported. Some participants felt that university courses were focused on knowledge accumulation to pass an examination rather than practical skillsets
	Project Management training material should be primarily practically-based	<i>Davies, 2000</i> <i>Divjak & Kukec, 2008</i> <i>McCreery, 2003</i> <i>Pant & Baroudi, 2008</i> <i>Rae, 2010</i> <i>Zwikael & Gonen, 2007</i>	Supported. Candidates appreciated both the applicable nature of the techniques taught and the ability to attempt them in a safe classroom environment
	Close alignment of material with attendees working environment is desirable	<i>Grossman & Salas, 2011</i>	Not supported. A tailored provision may not deliver to an attendee group of mixed abilities from diverse backgrounds
	Generic material is preferable as it allows participants to consider their own method of application	<i>Ellis et al., 2005</i>	Supported. Participants argued that a generic case study to apply the learning was beneficial as it allowed embedding technique without focus on specific content

Concerning the specificity of the material, counter to the criticism that material should be directly linked to job role (Grossman & Salas, 2011), the participants found that a generic case study was helpful in assisting and embedding techniques (Ellis *et al.*, 2005). They argued that they were sufficiently competent to make the link with their current role themselves and a generic study allowed greater transferability of learning.

Most traditional evaluation frameworks would not easily accommodate this type of training. They come from a goal-based perspective and seek evidence of organisational change. Looking for specific example of usage of technique using a traditional yes/no criteria or attempting to identify application of skills taught directly in these courses may prove difficult. This is because participants take away different tools and tailor them to fit their own specific purposes: on specific

projects, in a matrix environment and externally. This is facilitated by the generic aspects of the content which makes the learning easily transferable to any workplace. If participants do not attend project management training to become project managers, then evaluating a programme in this manner is likely to result in disappointment. However, this is precisely what the existing goal-based, organisationally-focused frameworks would deliver. The findings of this study suggest that an individually-focused, qualitative approach to evaluation may make it simpler to identify the benefits of project management training.

4.8. Trainee characteristics that influence the perceived value of project management training

‘Trainee’ was a category developed to assemble traits, behaviours and qualities of the individual participants of the study. The literature raised two concerns for this study: whether personal attributes have any bearing on how participants evaluate project management training. Whether there any of the identified features that significantly affect a participants evaluation of project management training.

The influencing factors from five influential works (Cheng & Ho, 2001; Holton, 2005; Noe & Schmitt, 1986; Russ-Eft & Preskill, 2001; Warr & Bunce, 1995) were consolidated into six areas and are summarised in Table 4.7 (full table in Appendix III). Although this was used to inform the coding of the interviews, it revealed that very few quotations focused solely on one specific aspect. As a result, in this section representative participant quotations are used to illustrate the exercising of trainee characteristics in two different situations.

Table 4.7: Summary of influencing factors

Category	Description
Demographic	Personal information about participant (including age, educational qualifications)
Attitudinal	Subdivided into 3 areas: pre-training (including expectations, motivation to learn); during training (enjoyment); post-training (including self-efficacy, openness to change)
Experience	Prior experience and work history of the participant
Application and transfer	Motivation and personal capacity to transfer the learning
Learning style	Ability and self-efficacy to learn new skills
Support	Opportunity to apply learning and favourability of work environment to allow it

Using the IMPACT taxonomy to analyse the interviews, it transpires that many of the ‘trainee characteristic’ factors have already been discussed. The influencing factor of participant ‘experience’ emerges in many of the IMPACT: ‘importance’ where often pre-training expectations are affected by the work history of the attendee; in ‘method’ an individual’s assessment of instructor credibility was closely aligned to their experience; and particularly in ‘purpose’ affirmation of existing skills develop as an important feature to participants. ‘Application and transfer’ is a recurring theme through each of the prior IMPACT categories where participants continually stated their desire for any material to be transferable to the workplace and examples were anecdotally provided to support their capacity to transfer the learning (which also supports the ‘attitudinal post-training’ category). The category of ‘importance’ captures many of the factors surrounding ‘pre-training attitude’ (participant expectations and their motivation to learn). Finally, ‘method’, ‘approach’ and ‘content’ cover ‘during training attitude’ and also consider ‘learning style’.

In this research there are insufficient numbers of participants to draw any conclusions on demographics. However, for the participants of this study it does

not appear to have any large bearing on the findings. This could be due to the fact that, although there are a range of ages, experiences and job roles in the study, being from a university environment all participants have similar educational and social levels. It would be an interesting continuation of this study to investigate whether similar opinions are held by project management trainees coming from other backgrounds (for example: construction, IT or public sector).

The only influencing factor not explicitly addressed in any of the other previous sections was 'support'. Many of the participants told stories of application of the learning, their uses for it, how it aided better communication in the workplace and increased their self-confidence. However, rather than include many similar extracts, the following passage (although quite long) encapsulates many of the areas discussed by the other interviewees. In the quotation, Steph explains that impact that the training had on her in terms of being able to utilise the skills delivered but also, resultantly, using their outputs to communicate effectively with her managers.

One of the very first things I did after doing all three of these sessions was to arrange a meeting. It was my slot to speak about my research so I thought, "okay, my two bosses are sitting there", so I said right this is the work I've done since I've been here, this is the percentage that's published, this is the percentage that isn't so that's sitting wasteful. This is what I have to do and these are all the separate projects I was doing. I was currently running nine projects, separate projects! I said this is what each stage is, this is what I've got to do to finish it and this is the time I have left.

So I presented all the work I was doing and then the time I had left. And I kind of had a bit of a stunned response from everybody that worked in the lab. Initially, I think nobody knew what to say! And then my boss was like, "Well, I knew you were doing a lot but okay, right, I see". I finished after that saying, "This is what I need to get for my career development, what do you need to get for getting the next grant in three years' time when I'm not going to be here?" And they were like okay.

So we had a really good discussion from that and it let me really focus on where I think I can get the papers that I need, and be less involved in the general day to day lab running, management stuff, solving other people's problems, and reducing the amount I'm supervising other people. I'm happy to take over some bits, but it was getting overwhelming. I think I managed to have a good cause for I can't do this anymore, I just need to do this much. So in breaking it down I think I'd be able to achieve what I want to achieve now, I think that is what is happening.

And it definitely gave them a feeling for where we could get the most results which would make us a little bit more efficient. They liked it being driven in that way because obviously they want papers, that's what they use, especially with the R.E.F. [Research Excellence Framework] coming up with how the university is to assess. So, you know, that way, it was attractive to them to package it in that way. And they were very...yeah, they were very

*receptive. (Steph, Post-doctoral researcher & laboratory manager
- Microbiology)*

A reason often given during project management training courses for the reasons that projects fail or are challenged is that managers make poor decisions. Researcher experience suggests that often the manager does not have enough information to make a better decision and the responsibility for providing useful information often lies with the complainant. Steph implemented the techniques she had learnt during the courses to be able to objectively explain why she was overloaded, had difficulty in completing all of her assigned work and made a dispassionate case for her line managers to prioritise the workload. Being able to demonstrate the amount of work currently in progress she also allowed the managers to focus on core elements that would allow them to deliver their key requirements (satisfaction of the R.E.F. – Research Excellence Framework). She used the tools to gain an increased appreciation of her workload and subsequently used them as a communication tool.

The theme of using techniques used in the project management training was a recurring theme through the interviews. Liam referred earlier to the common terminology that the course gave him for use in the workplace but many of the participants, like Steph, demonstrated using the learning as a device for more clearly communicating with colleagues and managers. Jane even went as far as to say that easier “*communication... was the biggest thing the course gave me*”. This discussion links to the earlier contention that many attendees on these particular project management courses are not interested in becoming project managers per se, they are simply looking for ways of increasing their efficiency in a working environment. The tools, techniques, models and ideas introduced during the

training are methods of facilitating this transition and are tweaked and tailored to the individuals' requirements. This highlights one of the other common threads through the interviews of transferability of content and the requirement to be able to apply the learning.

In her statement Steph is also demonstrating that the opportunity to use the new skills (Holton, 2005; Russ-Eft & Preskill, 2001) and the supporting environment (Cheng & Ho, 2001; Noe & Schmitt, 1986) are important factors in influencing training transfer and categorised in this study under the banner of 'support'. It additionally shows that she had a personal motivation to transfer and apply the learning and gained increased self-efficacy as a result. It further supports the assertions made in the section on 'approach' that many participants attending the training programme use the techniques taught not necessarily in the position of project manager but simply as a means of making their own working lives easier by operating more effectively. It allows them a way of objectifying the often emotional working environment by giving tangible assessments of possibilities existing within organisational operating constraints.

Using prior personal experience was only identified in two works (Russ-Eft & Preskill, 2001; Warr & Bunce, 1995) as being a strong influencer of training evaluation however many of the participants reflect on past experience as a way of making sense of the training. Using the conversational interview approach allows this level of contemplation that is particularly lacking from the more quantitative training evaluation frameworks. It also permits the examination of the development of knowledge for the participant and indicates that, despite only being mentioned by two scholars, it plays an important role in how participants subsequently perceive the value of the training delivered. Without the experience

that allows individuals to contextualise the experience it is perhaps difficult to identify occasions where the learning would be applied and, with applicability one of the principle requirements of most participants undertaking project management training, the lack of opportunity may negatively affect the evaluation.

The final interview quotation is, again, from Steph and extracts another recurring theme not thoroughly discussed elsewhere: the change in attitude.

It's working well. I keep remembering it'll be fine. But it has made me much more calm. I felt that my attitude was the thing that was changing most about the course, it's not necessarily just the information I was learning – the attitude adjustment side of it, more than just applying the tools. I almost think what I got out of it has almost made me grown up, if that makes sense. You know, you do your job but I thought I'm dealing with everything in a more professional way now – still academia and it's still quite free – but in a much more structured job-like manner. I thought I'd come along, project management, and we'll have different tools, different forms, different bits of paper, which I have millions of [already]! But what was really interesting, what emerged for me is the attitude shift and things, and how that's lingered. (Steph, Post-doctoral researcher & laboratory manager - Microbiology)

This “attitude shift” (Bramley, 1991) was commented on by several of the participants (Steph, Emma and Jane) and was one of the most surprising findings of the study. The project management training was heavily focused on procedures,

processes, tools and techniques which were designed to be applicable but not (for this programme) primarily focused on developing the ‘softer’, people skills. However, Steph comments that having an arsenal of tools made her less stressed and more able to cope with work situations. Jane suggested that she has “*become happier*” in the workplace as a result of the training courses.

<p><u>Key finding:</u> Participants mentioned (or implied) many of the identified attributes as having an effect on project management training, however these have been discussed in previous sections.</p>
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The arguments in the literature review and participants responses from this section are summarised in Table 4.8. Firstly, several participants identified self-efficacy as one of the most significant outcomes of the training programme. However, as discussed previously, this was not only in new skills but also increased confidence in existing competencies. This is particularly important for this study as all of the existing training evaluation frameworks focus on the assessment of the learning that has been delivered in the classroom. However, the evidence of this study indicates that often for project management training it could be less tangible aspects such as increased confidence and reduced anxiety that play an important role in how participants assess value. One reason for these changes was the emergent theme of using project management as a communication tool. Most of the participants are not project managers, however they find that using the learning from the programme makes it easier and less emotional to communicate with colleagues and managers in the workplace. This, they claim, reduces stress.

From these arguments, responses and emergent themes one major concern was identified: whether any characteristics were particularly significant in project

Table 4.8: Key ‘trainee’ findings in relation to the literature

	Argument(s)	Key author(s)	Finding(s)
Themes from the literature	Self-efficacy is key to improved learning	<i>Sadler-Smith, 2006</i> <i>Salas & Cannon-Bowers, 2001</i>	Supported. The participants discuss increased confidence in both new and existing skillsets.
	Perceived value of training is strongly influenced by individual, personal characteristics	<i>Holton, 2005</i> <i>Noe, 1986</i> <i>Velada & Caetano, 2007</i>	Supported. ‘Trainee’ has demonstrated these participants noticed increased confidence, and reduced stress and anxiety which are very subjective and personal.
Emergent themes			Central to project management training is communication. The ability to communicate more effectively with people from all levels reduced stress and anxiety, and resulted in an attitudinal shift for several of the participants.

management training. This has already been partially answered when discussing the responses with improved confidence, reduced stress and lessened anxiety commented upon by several participants. So, the data suggests that consideration of trainee characteristics and personal factors that can influence an individual’s evaluation of a training course is important. However, in the context of this study, it appears that including it as a separate category and is not particularly beneficial. It is the skills they have learnt (or augmented) that has provided impact on evaluation and that any attitudinal change is as a result of their application. On that basis, it is contended that trainee characteristics should be considered as a sub-component of every category rather than in isolation.

Understanding this human story behind the evaluation has been made possible by using a qualitatively dominant research method. Of course, these contentions may have been unearthed using another framework but no existing framework is looking specifically at the how an individual has changed personally as a result of training. They are all primarily focused on how the individual has changed the

organisation, which is a subtle but very important difference. This method was developed precisely to explore and understand the personal aspect of evaluation.

4.9. Summary

This chapter has detailed the findings of this research. An argument has been developed that understanding participant perceptions of value in this setting is of immense importance as each individual possesses differing experiences, expectations, wants and needs from a training course. It follows, therefore, that generic, quantitative, goal-based evaluation may not be suitable in examining these factors. In answering the first research question and investigating participants perceived values, it is contended that there is a requirement for a new or enhanced framework to evaluate project management training in this setting that reflects these participant values. Furthermore, organising the findings using the IMPACT taxonomy has shown that the arguments that existed in the literature as being important to project management training authors are also the concerns that exist for participants when assessing the value of training to themselves. Combined with the qualitative approach, the research method has encouraged discovery of unanticipated effects, identified emergent features and indicators of value that are sometimes obscured using traditional frameworks. This begins to answer the second research question. A full summary addressing each of the research questions is detailed in Chapter 5.

CHAPTER 5: DISCUSSION

5.1. Introduction

This chapter summarises the findings and discusses the research in two sections aligned to the questions that developed from the literature. First, examining how participants perceive value in the context of project management training. Second, considering the key indicators for the identification of value in a participant's evaluation of project management training. The chapter concludes by presenting a proposed framework for determining project management training value.

5.2. RQ1: How do participants perceive value in the context of project management training?

5.2.1. Individual focus

The most significant finding associated with the first research question is the importance of the focus of a training evaluation when considering perceived value. The evidence in this research suggests that emphasis on the individual may be more beneficial than attempting to establish organisational change resulting from project management training interventions. Although most popular frameworks (Bramley, 1991; Brinkerhoff, 2003; Hamblin, 1974; Holton, 1996; Kirkpatrick & Kirkpatrick, 2006; Phillips, 2003; Warr *et al.*, 1970) attempt to demonstrate and evidence a link between training and tangible business results or organisational impact, the data from this research suggests that it may be more suitable to identify whether participants make any perceived connections between training and individual objectives.

The findings of this research indicate that each participant attends project management training for different reasons and, therefore, perceive value differently: some of these reasons impact directly on the organisation and can be measured (for example, the ability to attract more research funding); some have impact on the organisation but are difficult to measure (for example, increased self-confidence in an existing skillset – nothing changes but people are happier); whilst some have no impact on the commissioning organisation whatsoever (for example, people using the skills in non-professional life). Contrary to most existing frameworks, the evidence indicates that, in a university setting, evaluating project management based on organisational impact does not necessarily give a true reflection of a participant's perception of value. However, the findings agree that an individual's evaluation of a training course is strongly influenced by their expectations (Santos & Stuart, 2003). As such, it is contended that a course should be structured to achieve those objectives. Many frameworks focus primarily on assessing whether learning outcomes defined during training design have been met. This research indicates that the desires of attendees are often unknown to the course designer and training facilitator, and the participants expectations (if any) are often unclear. Being constrained by a strict framework of succeeding levels can limit the evaluator's ability to uncover unanticipated side-effects (Brinkerhoff, 2003). The findings also support the importance of applicability in project management training (Davies, 2000; Divjak & Kukec, 2008; McCreery, 2003; Pant & Baroudi, 2008; Rae, 2010; Zwikael & Gonen, 2007). The evidence indicates that everyone applies the learning in a different style (sometimes different to the intended manner) so using a traditional evaluation model with checklists and metrics may not uncover some uses. The

training was delivered to participants from differing backgrounds with diverse experiences and expectations where the focus was on transferability of generic skills to multiple environments. As such, focusing on learning outcomes, organisational benefit or goal-based assessment (as covered by existing methodologies) would be unsuitable as these are not clear at the outset. This suggests that, for project management training, a bespoke framework would be beneficial.

5.2.2. Qualitative approach

Using Brinkerhoff's (2003) Success Case Method as the basis of the research method allowed deep interrogation of how participants perceive the value of project management training and permitted examination of the elements they viewed as significant. This leads to the second significant finding from this research: that, for project management training evaluation in this setting, a qualitative mode of enquiry may be more suitable. Most evaluation frameworks attempt to mitigate the effect of human bias in evaluation by being heavily quantitative and providing statistics such as return on investment (Tasca *et al.*, 2010; Thomas & Mullaly, 2008) to demonstrate the success or otherwise of training. However, the findings here suggest that each participant is seeking different outcomes from project management training, therefore it is suggested that looking at evaluation from the individual perspective may be better. Ultimately, the evaluation of a training event is no more than "someone's opinion" (Bramley, 1991, p4) and, rather than attempting to avoid it with objective, heavily quantitative measures, it may be preferable to embrace this inherent bias.

Unexpected benefits from training are also reflected in one of the emergent findings of this study. In their interviews many participants explained that a key output of the training was affirmation and increased confidence in an already existing skillset. Self-efficacy is considered key to improved learning (Sadler-Smith, 2006; Salas & Cannon-Bowers, 2001), however in existing evaluation frameworks it is viewed from the perspective of the impact on newly learned abilities. This research develops the argument that in project management training evaluation, self-efficacy should also be assessed considering existing skillsets that are affirmed during the training, not solely new skillset learned during a programme. Many of the participants (particularly Liam, Alan and Jane) spoke of their delight at positive affirmation of their current workplace activities. If evaluation is solely from the perspective of organisational improvement then this change may go undetected, as people continue to do what they have always done. Furthermore, participant perceived value of training is strongly influenced by individual, personal characteristics (Holton, 2005; Noe, 1986; Velada & Caetano, 2007). The ability to explore this human aspect of assessment is, it is contended, easier to achieve when having the individual at the heart of a qualitative training evaluation.

In summary, it is argued that existing frameworks do not adequately accommodate these three main concerns within project management training evaluation: the individual expectations; the exploration of unanticipated side effects; and, the investigation of affirmation of existing skills. For these primary reasons, it is suggested that a more qualitative approach to evaluation with an individual focus may be more suitable for this type of project management training.

5.3. RQ2: What are the key indicators for the identification of value in a participant's evaluation of project management training?

Initially, IMPACT (importance, method, purpose, approach, content and trainee) was used as a steering device for conducting the literature review on project management training. However, the coding of the research interviews suggests that the concerns that exist in the literature relating to the style and substance of training, are also important for participants when they assess the value. A key finding of this research is that the taxonomy developed to organise this study allows the derivation of the most important features that influence a participant's perception of value. This section summarises the evidence for this assertion. It begins by using the literature and the findings to identify features that affect participant perceptions of value and concludes by answering RQ2 through proposing the key indicators for the identification of value in the evaluation of project management training.

5.3.1. Features that affect participant perceptions of value

There are two distinct areas in the literature reviewed in this thesis. The first relates to project management training, with the second concerning training evaluation. There is very little work pertaining to both (Lee-Kelley & Blackman, 2011). The findings suggest that the issues that are troubling training scholars are very similar to the concerns that participants raise in their evaluation of project management training. Each of the elements that participants considered important in the assessment of a training course are also the areas in which tensions existed in the literature. The qualitative method of enquiry allowed exploration of these

Table 5.1: Features that affect participant perceptions of value

Literature	Summarised findings from this study	Identified features	Stage of training process
Importance	<p>Participants wish to improve ability linked to current or future role</p> <p>Pre-course expectations strongly influenced participants perceptions of value</p>	<p>Participant work experience</p> <p>Participant expectation</p> <p>Motivation to transfer</p>	<p>Pre-training</p> <p>Post-training</p>
Method	<p>Participants place high regard on the practical experience of the instructor</p> <p>There participants believe practitioner-led events increase instructor credibility</p>	<p>Instructor credibility</p>	<p>Pre-training</p> <p>Training</p>
Purpose	<p>Participants attend project management training courses to improve their ability to perform their job, not specifically to be become project managers.</p> <p>The effect of the training on existing skills should be considered</p>	<p>Participant expectation</p> <p>Transferable material</p> <p>Applicable skillset</p> <p>Motivation to transfer</p> <p>Supervisory support</p> <p>Opportunity to apply</p>	<p>Pre-training</p> <p>Training</p> <p>Post-training</p>
Approach	<p>The training course should focus on applicable skills rather than theoretical concepts</p>	<p>Applicable skillset</p> <p>Opportunity to apply</p>	<p>Training</p> <p>Post-training</p>
Content	<p>The learning should be hands-on application of techniques and generic case studies allows focus on topic rather than particular situation</p>	<p>Practical exercises</p> <p>Applicable skillset</p> <p>Transferable material</p> <p>Motivation to transfer</p> <p>Supervisory support</p> <p>Opportunity to apply</p>	<p>Training</p> <p>Post-training</p>
Trainee	<p>Affirmation of existing skills is not captured by any other framework but participants agreed to its importance</p> <p>New skills contributed to an increase in self-efficacy</p> <p>Learning common terminology provided improved communication and understanding</p>	<p>Applicable skillset</p> <p>Transferable material</p> <p>Motivation to transfer</p> <p>Supervisory support</p> <p>Opportunity to apply</p>	<p>Training</p> <p>Post-training</p>

debates and, from the findings, nine features are identified that influenced a participant's perception of value. There are summarised in Table 5.1.

5.3.1.1. Importance to participants of project management training

Examining the category of 'importance' supported the argument that that pre-course expectations of a project management training event are largely based on the work experience of the participant. In the literature, Davies (2000) argued that project management ability was primarily derived from experience, however these findings indicate that participants only used their experience to manage their expectations and conceptualise the learning. Therefore, 'participant work experience' develops as an important feature, as an individual's evaluation of training is strongly influenced by their expectations (Santos & Stuart, 2003). Additionally, using their experience to manage their expectations, contextualising the learning and linking the training to their own work environment or future desired roles highlighted 'participant expectation' as another key factor for inclusion. Although important throughout the training cycle, these factors are initially apparent during the pre-training stage of the training process. Finally, there must also be a 'motivation to transfer' following the course in order to allow the skills to become embedded. It is this implementation that is examined by paying close attention to memory and reflection within the conversational interviews.

5.3.1.2. Method of facilitating project management training

When considering 'method', the participants concur with Hassi *et al.*, (2011) and Kouzes & Posner (2005) that the credibility (but not personality) of the instructor has a large influence on their opinion of the material delivered. In terms of

establishing credibility, the participants of this study express a desire for the instructor to have practical experience of project management which supports Edmonds (2010) and Pant & Baroudi (2008). However, one of the emergent findings of this research is that where this experience comes from is dependent on the content of the course. For example, a course detailing organisation-specific processes should be facilitated by someone internal to the institution. This suggests that it is not a simple delineation between practitioner- or theoretician-led approach but that a spectrum exists based on the experience of the participants and the purpose of the training. These findings predict that different types of training can be valuable to different participants in different ways and is supportive of the earlier contention that generic evaluation results could prove misrepresentative. It also emphasises the significance of ‘instructor credibility’ as feature that affects participants when assessing training value.

5.3.1.3. Purpose of conducting project management training

The data under the category of ‘purpose’ identified that the participants main aim in attending was to improve in their current role – which, the findings of this research indicate, is normally not a project management position. This assertion agrees with Lochter (2013), McDonald (2010) and Stoyan (2008) that the training, therefore, should focus on transferable, workplace applicability making ‘motivation to transfer’, ‘opportunity to apply’ and ‘supervisory support’ key for successful transfer (Cheng & Ho, 2001; Dermol & Cater, 2013; Holton, 2005; Noe & Schmitt, 1986; Russ-Eft & Preskill, 2001). These features will embed the substance of the training post-course, allowing for reflection on the event through the lens of the present and making a subsequent value assessment having put the learning into practice. This transfer of learning also implies that the ‘participant

expectation' of the training (which is also identified through 'importance'), the use of 'transferable material' and teaching an 'applicable skillset' is going to influence how the training is assessed by the individual. This makes them justified features for consideration when evaluating all stages of the project management training process.

5.3.1.4. Approach in delivering project management training

The desire for applicability and focus on workplace efficiency extends into the factors that developed from 'approach' as important evaluation elements. The literature criticises project management training for being simplistic and focusing too heavily on professional bodies of knowledge (Ojiako *et al.*, 2011; Thomas & Mengel, 2008; Zhang & Xu, 2008). However, the findings of this research indicate that this simplicity and the link to existing methodologies are appreciated by participants. This is reflective of the earlier finding that workplace improvement is more important to participants than project management career progression. Liam and Alan particularly appreciated being introduced to a common vocabulary and terminology as they believed it enhanced their ability to understand and communicate with both internal and external stakeholders on their projects. From these findings an 'applicable skillset' and 'opportunity to apply' appear as elements considered key to the participants particularly during the delivery of the training.

5.3.1.5. Content of the project management training course

The idea of applicability continues into 'content' where hands-on exercises and the opportunity to use new techniques ranks as most important by both participants and the extant literature (Davies, 2000; Divjak & Kukec, 2008;

McCreery, 2003; Pant & Baroudi, 2008; Rae, 2010; Zwikael & Gonen, 2007). It was found that the participants in this research disagreed with Grossman & Salas (2011) that training should be specific to the working environment. They argued that generic training content allowed a great opportunity for transferability of learning (Ellis *et al.*, 2005) and enhanced employability (Golovushkina & Milligan, 2013; Rae, 2010; Stoyan, 2008). It was always assumed that ‘content’ would form an important evaluation criterion for project management training, however the findings have demonstrated that it is not only the material itself but also the form that it takes (practically-based, generic, applicable) that is equally important to participants. If individuals are using these criteria as personal assessment measures then it would be prudent to consider ‘practical exercises’, ‘applicable skillset’ and ‘transferable material’ as important factors in an evaluation framework in the delivery stage of the training process. It follows that for participants to reflect positively on these elements then ‘motivation to transfer’, ‘supervisory support’ and ‘opportunity to apply’ are also essential.

5.3.1.6. Trainee characteristics that influence the perceived value of project management training

The major theme of applicability continued into the final category of the taxonomy. Even when discussing ‘trainee’ characteristics, the notable attitudinal shift in some participants was as a result of being able to implement the learning to their own work setting. Several interesting findings emerged from the ‘trainee’ category. The first was around self-efficacy being demonstrated in not only new, but also in existing, skillsets. Revisiting trainee influencing factors in the literature review (see 2.3.6, p32 and Appendix III) reinforces the argument for the inclusion of ‘motivation to transfer’ and ‘opportunity to apply’ as important features. It also

supports 'supervisory support' as an additional element supporting Dermol & Cater's (2013) contention that impact may be influenced by environment. Another finding that strengthens the argument for their inclusion, was the reduced stress and workplace anxiety that was commented upon by several participants (particularly Steph and Jane) as a result of using the learning. Several participants commented that this decrease in stress and increase in confidence resulted from using the project management learning as a way of interacting and discussing work with colleagues.

As part of the guide, the features affecting participants assessments of value have been grouped under the different stages of the training process consisting of pre-training, training and post-training. Where duplicates exist they have only been included once under the heading where they are most applicable. These features are the ones defined as most significant when used by participants to assess value. Identifying whether or not they have been fulfilled (and, as such, whether the participant viewed the training as valuable) is achieved through investigating the intended outcomes.

5.3.2. Indicators of value

By examining the examples, interview stories and personal anecdotes from which the features were derived, indicators can be developed that show whether or not a project management training course has been perceived as being successful from the point of view of the participant. Each of the features that influence a participant's perception of value have been evidenced in the findings of this research (Chapter 4, p104) by the incidents that individuals focused on in the interviews. Each of these incidents illustrate a practical implementation of the

training and have been developed into intended outcomes of project management training (**Error! Reference source not found.**).

Table 5.2: Indicators of perceived value in project management training

Features affecting value	Indicators of perceived value
<u>Pre-training</u> Participant experience Participant expectations Instructor credibility	Achieved participant goals Contextualised content Received positive affirmation
<u>Training</u> Practical exercises Applicable content Transferable material	Enhanced skills Increased effectiveness Increased self-efficacy Increased confidence Applied learning Improved communication
<u>Post-training</u> Motivation to transfer Supervisory support Opportunity to apply	Increased effectiveness Increased self-efficacy Increased confidence Applied learning Improved communication Reduced workplace anxiety

For ‘participant expectations’ and ‘participant work experience’ the interviewees discussed their pre-course needs, job roles and reasons for attendance. If they felt these were satisfied, then the indicator of ‘achieved participant goals’ can be considered to be fulfilled. Similarly, their prior work experience and the influence of ‘instructor credibility’ assisted in their ability to ‘contextualise content’ which becomes the second indicator. Many of the features can be demonstrated in different ways: for example, the ‘practical exercises’, ‘applicable skillset’ and ‘transferable material’ can be examined by looking for the participant to describe examples of ‘enhanced skills’, ‘increased effectiveness’, ‘applied material’ and ‘increased confidence’. Evidence establishing each of these indicators as important have been highlighted in the quotes of Chapter 4. Similarly, the features ‘training transfer, ‘supervisory support’ and ‘opportunity to apply’ can be

exhibited in indicators relating to ‘increased effectiveness’, ‘applied learning’, ‘increased confidence’ and ‘reduced workplace anxiety’.

Where participants spoke positively about experiences, shared stories, and provided examples, these have helped to develop the intended outcomes of the training. These have been included in the framework as they begin to demonstrate how the participant views the link between the key features (the theoretical considerations) and the workplace events (the practical implications). Seeking examples of each of these indicators in the testimony of the individual allows the evaluation to demonstrate that the participant’s value propositions have been fulfilled. As the focus of the framework is to interrogate perceptions of value, there is no assertion made to whether any causal link between the training and the incident actually exists – which is extremely difficult to prove (Bates, 2004; Giangreco *et al.*, 2010) – thus negating the criticism levelled at many of the traditional evaluation frameworks. The purpose is only to identify whether the participant believes that there is a connection, and if that link is established in their mind then it implies increased training value. If these indicators can be identified to in the evaluation data, it is contended that the features that govern the participant’s value perceptions have been achieved.

5.4. Proposed new framework

From the findings of this research, a new project management training evaluation framework has been developed and is presented here. It has been created in light of the answers to the two original research questions by proposing a conceptual dual-aspect framework for discovering information about project management training. The framework is detailed in Figure 5.1.

The first part of the framework is the project management training evaluation method. This consists of conversational interviews influenced by four key features: ‘memory’, ‘voice’ and ‘reflection’ (as discussed previously) and ‘freedom’ (which signifies the highly qualitative approach and the lack of constraints placed upon the evaluator in the way the method is implemented).

The second component of the framework is a guide which aligns and contextualises the evaluation within a project management training setting. This provides a loose structure for the interview allowing a degree of replicability of approach and allowing comparison between interviews. A number of important features were identified as being significant in informing participants’ perceptions of value and form the basis of the guide for discussion. From these factors a ten indicators of value emerged. Through examples and anecdotes provided during the interview, the evaluator attempts to evidence these outcomes and, from them, draw conclusions as to the value perceived by project management training participants. This section discusses the theoretical underpinning of the framework and details the operational implementation for practitioners.

5.4.1. Project management training evaluation method

The first constituent part of the framework is the application of qualitative techniques to project management training evaluation. The key method of achieving this is through conversational interviews. Placing the individual at the centre of the evaluation recognises the importance of features such as memory, reflection and voice which are typically absent from quantitative evaluation models. Their inclusion within this framework allow provision of a richer and more in-depth understanding of individual perception and experience than is

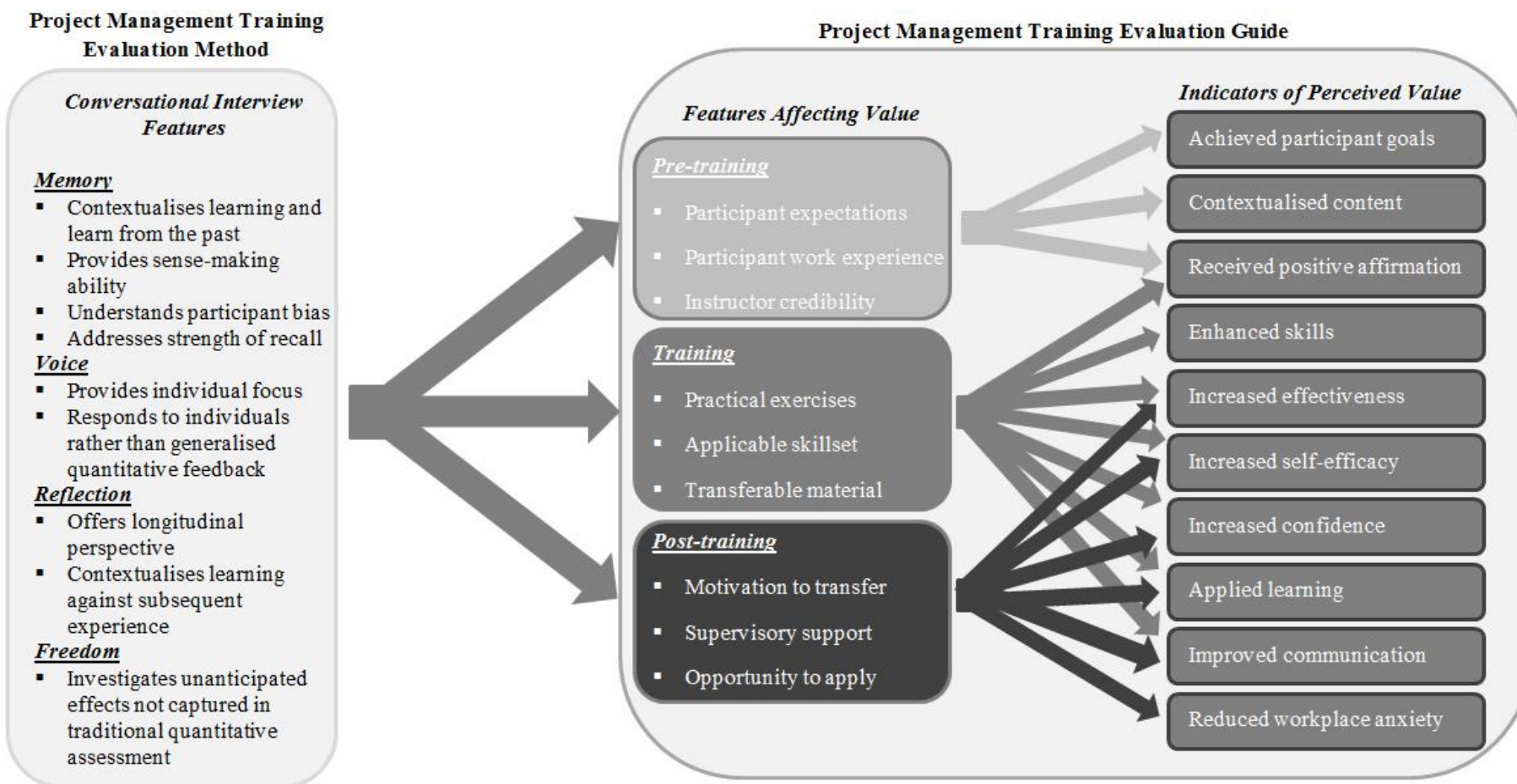


Figure 5.1: Proposed project management training evaluation framework

currently available using most other evaluation models. Similarities can be drawn between the proposed method and Brinkerhoff's (2003) Success Case Method (SCM): for example, the loosely structured interview and the qualitative approach. However, several important and notable differences to the SCM are identified. This section discusses the application of this qualitative approach to evaluation by highlighting the key features from conversational interviews (memory, voice, reflection and freedom) that inform this enhanced framework. It also details how it differs from other existing training evaluation methods.

5.4.1.1. Memory

Consideration of memory within an interview gives the ability to contextualise the learning of the present against the experience of the past (Popular Memory Group, 2006; Thompson, 2000). This urges greater penetration of the learning as it encourages sense-making of past events (McKenzie, 2005; Thomson, 2006) which is important within project management training as it promotes learning from mistakes. Furthermore, considering memory within a conversational interview permits the interviewer to assess strength of recall as an indication of importance of topics to the participant (Thompson, 2000). The stronger the memory, the more resonant and important the topic is to the speaker (Allison, 2006). None of the existing evaluation frameworks place such a level of importance on the attention to memory. It is proposed that, although memory is often criticised for being subjective and individually biased (Guan, 2008), its consideration allows exploration of participant biases and potential reasons for their predisposition. This permits a deeper understanding not only of what, but also why, participants value certain factors above others (Perks & Thomson,

2006) and, in doing, so allows greater sensitivity the individual training requirements.

5.4.1.2. *Voice*

The second key factor influencing the conversational interview method is the concept of voice. One of the major precepts of much qualitative research is the notion of change and evolution in light of individual testimonies (Perks & Thomson, 2006). This is particularly relevant in an evaluation setting as the purpose of evaluation is often to determine effectiveness of training (Kirkpatrick & Kirkpatrick, 2006), with the additional goal of continuous improvement. For this reason, placing the participant at the heart of the evaluation and attempting to hear their voice (rather than solely quantitative feedback) gives an opportunity to change and evolve project management training based on participants' perceptions of value. This focus on the individual, and the attempt to make theirs the most important voice in the evaluation, highlights a major difference between the proposed framework and SCM. The literature review showed that most evaluation frameworks (including SCM) assess the impact of training from an organisational level. However, the findings of this research suggest it may be more beneficial (for this type of project management training) if the value is investigated from an individual perspective. It is contended that, although their assessments may be largely subjective, placing the individual at the heart of the evaluation by favouring this qualitative approach provides a truer reflection of the perceived usefulness of a course.

5.4.1.3. *Reflection*

Reflection permits participants to contemplate, through stories and examples, the effect that training has had on their lives in light of subsequent experiences (Thompson, 2000). By opening up discussion to beyond the work environment it encourages the exploration of unanticipated consequences of the training. Additionally, an exploratory approach has allowed a framework to be developed that not only evaluates but attempts also to understand how people evaluate. Considering individual recall and memory strength allows reflection on how evaluation of a training event can be enhanced (or diminished) post-course by subsequent experience (Allison, 2006). While this was not investigated in great detail, the approach taken here allows a temporal, time-lapse view of evaluation but without the requirement for a longitudinal study (Thompson, 2000). This is counter to the vast majority of existing evaluation frameworks that act as snapshot perceptions at a point in time.

5.4.1.4. *Freedom*

The final important factor to consider for the conversational interview is the freedom to investigate granted by a loose structure which permits the exploration of potentially unexpected effects and outcomes of the training (Brinkerhoff, 2003). This freedom promotes hidden aspects of project management training that have remained obscured by most other evaluation models. While this concept is similar to that of SCM, when coupled with the previous elements of memory, voice and reflection, it is enhanced by encouraging deeper examination of participant perceptions linked to individual needs than any of the other frameworks. Another main difference between the proposed method and the work

of Brinkerhoff (2003) is that following each interview the SCM seeks objective evidence from the workplace to corroborate the interview findings (for example, verification of change from supervisors or co-workers). This can be a time-consuming and difficult activity, it remains subjective in nature, and proving any causal link between training and evidence is extremely difficult (Noe & Schmitt, 1986). The proposed framework requires no such corroboration of fact. It is solely focused on subjectively examining the elements that the participants personally found valuable. The findings show that participants believed that the training contributed positively to their personal effectiveness, so this framework focuses on investigating how the individual alleges that training has made a difference. The freedom offered by a loose structure encourages and embraces this interrogation in a way unlike any other existing framework.

5.4.2. Project management training evaluation guide

If the purpose of the evaluation is to draw some comparisons between different participants, a completely unstructured interview is unfeasible (Thompson, 2000). The second component part of the proposed framework is a project management training evaluation guide which offers a degree of direction to the conversation and its consideration contextualises the evaluation in a project management setting. Rather than being prescriptive it should be used simply to steer discussion and avoid overlooking elements rather than a list of questions (Qu & Dumay, 2011).

5.4.3. Operationalising the framework

One the major strengths of the proposed framework is the ease of implementation for practitioners. The primary skillset of the person applying the framework needs

to be the ability to listen and appear empathetic to the participant (Frisch, 1990). This addresses criticisms of models such as Holton's (1996) which is theoretically robust but too complex to be applied, or other methods that are "too elaborate, too costly" to implement (Brinkerhoff, 2003, pXI). It provides an enhanced framework by contextualising the evaluation for project management and, by adopting a qualitative approach, focuses on individual assessments of value rather than organisational impacts. There follows guidance on operationalising the framework, with a particular focus on the conduct of the interviewer during the interview process.

During the process of conducting this research, interviews were held in a variety of different places: meeting rooms, offices, canteens and coffee shops. While the interviews conducted in the more social environments appeared to make the participant relax more, often the testimonies were less focused and there were greater distractions. From the experience of this research, a meeting room within the participant's place of work is optimal for this type of interview. It is a familiar environment for the participant and this familiarity often helps mitigate any unequal power dynamic between the interviewer and interviewee. Another advantage over a social setting is that the participant remains 'in work mode' during the interview which makes recall of application to the job easier (Thompson, 2000). In conducting the interview, normal ethical processes should be followed including the offer of anonymisation. The interview normally lasts around 45- 60 minutes and should be recorded.

One of the main differences between this and other frameworks is the placement of the individual at the centre of the evaluation. This is where the project management training evaluation guide should be used to ensure coverage of all

the key aspects that have been defined as shaping an individual's value proposition. The conversational interview method allows a very loose structure, however the interviewer should refer to the key features to lead the conversation and the outcomes to uncover evidence of training application. As such, when conducting the interviews, the interviewer should encourage the participant to recall past events through the lens of the present by using phrases such as "tell me more about that", "how do you feel about that now" and "would you do anything different" (Thompson, 2000). Note should also be taken about elements such as tone, speed of speech and body language.

One of the key reasons for adopting the conversational interview as a method is to uncover potentially interesting effects of the training that may be missed by a traditional evaluation model. The interviewer may need to give encouragement to the participant to explore these avenues as the participant often considers them unimportant, so phrases such as "that sounds interesting", "tell me more", "how/why was that" can provide affirmation of the usefulness of the testimony (Thompson, 2000). The interviewer should focus on active listening and giving encouragement (verbal and non-verbal) to reaffirm to the participant that their testimony is both interesting and valuable (Anderson & Jack, 2006). To assist reflection, visual aids can be used to stimulate the thought process. For example, materials from the course, handouts or even something like post-it notes that may trigger the memory of a course exercise (Slim *et al.*, 2006).

Following the interview the recording should be transcribed. While it is preferable to do this by hand, time limitations may mean sub-contracting it to an external service. The transcription should be analysed, either by hand or using a software such as NVivo, to demonstrate examples of the participant referring to the

outcomes defined in the framework. Where these are evidenced implications can be derived that the according key feature has been achieved and value perceived.

While there are identifiable strengths to this framework, there are also a number of limitations. Given the time implications involved with this type of interview, transcription and analysis, it is almost certainly not feasible to adopt this approach for every participant or even every course. It is better equipped to supplement existing frameworks rather than replace: for example, perform Kirkpatrick Level 1 analysis complemented by this evaluation at regular intervals. To achieve this, it is recommended that organisations could adopt a similar approach to Brinkerhoff (2003) by selecting a small number of representative individuals (possibly on an annual basis at the conclusion of a programme) to give a deeper assessment of the training and its value from the participants perspective. This method is not without criticism and the same negativity that is levelled at Brinkerhoff (2003) can also be applied to this framework: fundamentally, that it encourages selective bias and participants are subjectively identifying their own critical success factors (Passmore & Velez, 2012). However, it is argued that by using purposive rather than random sampling more can be learnt from great successes and abject failures than can be achieved through calculating averages. Evaluators could then use the proposed new framework as a means of assessing the participant's evaluations and identifying areas of potential improvement and topics that were particularly valued and should be retained.

5.5. Theoretical and practice based contribution

The literature review in Chapter 2 (p10) identified gap in the existing body work in discussing the elements that individual participants perceive as valuable in

project management training. There is a large body of work pertaining to project management training, and volumes dedicated to training evaluation but very little that combines the two areas (Lee-Kelley & Blackman, 2011; Nickols, 2005; Tharenou *et al.*, 2007). This study makes three unique contributions to the project management training evaluation literature.

First, it is the only study to examine participants' perceptions of value of a project management training course. Previously research has focused on meeting learning outcomes and measuring organisational impact, however as many attendees use the outputs of project management for a variety of reasons such a goal-based focus may not always be appropriate. Using a method rooted in exploratory qualitative research has permitted examination of uses and benefits previously obscured by more quantitative assessment methods. These have been detailed in Table 5.1. It has been shown here that many of the benefits received from project management training cannot easily be assessed through traditional approaches prescribed by many evaluation methods. To focus on improved organisational improvement is important from a managerial perspective but can be limited in its effectiveness by sometimes obscuring unexpected outcomes of the training. Considering participants' perceptions of value permits comparison of desired, expected outputs with subjectively-viewed realised changes in the attendees' lives. This is particularly pertinent when the reasons for attending training is participant-led personal or professional development.

Second, the findings of this research suggest that the concerns that participants perceive while evaluating a training course align with those expressed by authors of project management training literature. Using the conceptual taxonomy developed from the literature has allowed the study to address some of the

tensions that exist in the project management training literature from the perspective of the participants undertaking the training. Considering the participants value proposition in light of the most contentious scholarly debates represents a hitherto unexplored contribution to the literature. These key contributions with links to the appropriate literature are summarised in Table 5.3 below.

Table 5.3: Summary of arguments within the literature review with associated findings

	Argument(s)	Key author(s)	Finding(s)
Importance	Project management ability is derived primarily from experience not training	<i>Davies, 2000</i>	Not supported. Experience is important but only in so far as it allows the attendee to contextualise the training
	Existing evaluation frameworks may not adequately assess project management training	<i>West, 2003</i> <i>Tasca et al., 2010</i>	Unclear. Many elements indicated as important by participants are not considered in existing frameworks, however more investigation need in following sections.
	Training can help to improve project management ability	<i>Edmonds, 2010</i> <i>Eskerod, 2010</i> <i>Lee-Kelley & Blackman, 2011</i> <i>Suikki et al., 2006</i>	Supported. Candidates perceived value in attending primarily to improve ability linked to either current or future roles
	An individual's perceived value is strongly influenced by their expectations	<i>Santos & Stuart, 2003</i>	Supported. However, any pre-course expectations of perceived value centred around what the course would deliver holistically (i.e. job prospects, link to role) rather than specific material content
Method	It is preferable for project management training facilitated by those with a robust theoretical grounding in the subject	<i>Crawford et al. (2006,</i> <i>Thomas & Mengel (2008)</i> <i>Winter et al. (2006).</i>	Not supported. Participants perceive experience to be key in establishing instructor credibility
	Project Management training is best facilitated by experienced practitioners	<i>Edmonds, 2010</i> <i>Pant & Baroudi, 2008</i> <i>Teplitz, 2001</i>	Supported. Participants perceive value in experience as they believe it gives the ability to contextualise and to consider the application of the learning
	The experience of practitioners lend credibility to the learning and enhance the perceived training value	<i>Hassi et al., 2011</i> <i>Kouzes & Posner, 2005</i>	Supported. The demonstration of practical experience through examples and anecdotes made participants believe that the training was more valuable than only theoretical learning

Purpose	Project Management training outcomes should deliver thorough subject understanding	<i>Thomas & Mengel, 2008</i>	Not supported. Participants believe the value in PM training is to provide tools and techniques to implement in the workplace. All learning must have a practical application
	Project Management training outcomes should focus on workplace applicability	<i>Aguinis et al., 2011 McDonald, 2010</i>	Supported. Candidates were unanimous in valuing that the learning has to be able to be applied to their work environment
Approach	Project Management training is too simplistic. Project Management is based too heavily on professional bodies of knowledge	<i>Crawford et al., 2006 Ojiako et al., 2011 Thomas & Mengel, 2008 Winter et al., 2006</i>	Unclear. As the candidates valued an applicable skillset they appreciated a lack of complexity. They appreciated a link to existing frameworks but may not have enjoyed a course solely dedicated to one specific model.
	Project Management technique is not complex, so training reflects this. Project Management should be based on practice	<i>Aguinis et al., 2011 Edmonds, 2010 Pant & Baroudi, 2008</i>	Supported. Candidates were unanimous that the learning has to be able to be applied to their work environment as most attend to improve workplace efficiency
Content	Many academic project management programmes are theoretically rigorous but lack 'real world' applicability	<i>McDonald, 2010 Ríos et al., 2010 Vermeulen, 2007</i>	Supported. Some participants felt that university courses were focused on knowledge accumulation to pass an examination rather than practical skillsets and were less valuable as a result
	Project Management training material should be primarily practically-based	<i>Davies, 2000 Divjak & Kukec, 2008 McCreery, 2003 Pant & Baroudi, 2008 Rae, 2010 Zwikael & Gonen, 2007</i>	Supported. Candidates perceived value in both the applicable nature of the techniques taught and the ability to attempt them in a safe classroom environment
	Close alignment of material with attendees working environment is desirable	<i>Grossman & Salas, 2011</i>	Not supported. A tailored provision may not deliver to an attendee group of mixed abilities from diverse backgrounds
	Generic material is preferable as it allows participants to consider their own method of application	<i>Ellis et al., 2005</i>	Supported. Participants argued that a generic case study to apply the learning was valued as it allowed embedding technique without focus on specific content
Trainee	Self-efficacy is key to improved learning	<i>Sadler-Smith, 2006 Salas & Cannon-Bowers, 2001</i>	Supported. The participants talk about finding value in increased confidence in both new and existing skillsets.
	Perceived value of training is strongly influenced by individual, personal characteristics	<i>Holton, 2005 Noe, 1986 Velada & Caetano, 2007</i>	Supported. 'Trainee' has demonstrated these participants noticed increased confidence, and reduced stress and anxiety which are very subjective and personal.

Third, the proposed framework builds on the previous work in the field (Brinkerhoff, 2003) but also augments it by providing this opportunity for deeper interrogation of the reasons behind the evaluation scores. It places the individual at the heart of the assessment and is primarily concerned with impact on them rather than organisationally, which respects the request of Floricel *et al.* (2014) for greater awareness of social relations and human aspects within project management research. In covering the provision of external providers in a university setting this work is contributing to an area of research that is currently very sparse (Hassi *et al.*, 2011; Lebcir *et al.*, 2008).

This study begins to bridge the science-practice divide as requested by several authors (Aguinis *et al.*, 2011; Giangreco *et al.*, 2010; McCreery, 2003; Vermeulen, 2007) by considering both the theoretical implications of the research as well as the application for practitioners. This study makes X contributions to practice.

First, although proving causal links between training and changes in the workplace is extremely difficult (Alliger & Janak, 1989; Alliger *et al.*, 1997), using the indicators identified in this study can help to provide an understanding of the subjective value gained by participants of a training programme. Hence, it can be deduced that the framework based on these findings could be an effective measure of evaluating a project management training programme from an individual's perspective. This can be used in collaboration with other, more organisationally focused evaluation methodologies to contribute a holistic assessment of a training programme from both a corporate and individual perspective.

Second, the findings of the study can contribute to the understanding of participants' perceived value of project management training courses, leading to improved alignment of provision with the requirements of the individual attendees. This improved understanding can assist training administrators (in aligning courses to participant requirements and better marketing to attendees: importance, method and purpose), instructors (in ensuring participant values are understood and delivery aligned: purpose, approach and trainee) and course designers (in understanding the preferred method of learning: purpose, approach and content).

Finally, augmented evaluation capabilities and improved training delivery gained through a better understanding of participant perceptions of value can be used as a valuable sales tool for training providers. The ability to articulate and then subsequently successfully deliver satisfying participant value proposition will increase demand and promote growth of the provider. This is already being evidenced and discussed briefly in s6.7, p218.

5.6. Application to practice

The output of this thesis is intended to be used by a variety of different training stakeholders with varying purposes. The framework is not unnecessarily prescriptive in regard of the output of the evaluation and, having identified the most important elements through the interviews, the decision on how to present it can be made on a case-by-case basis dependent on the target audience. The output of the evaluation is going to be heavily dependent on the purpose of performing it and the receiving stakeholders (Alliger *et al.*, 1997; Bryson *et al.*, 2011; Lee-Kelley & Blackman, 2011; Powell & Yalcin, 2010). This allows the evaluation to

address concerns of different actors within an organisation (Nickols, 2005) and the same information can be displayed in a variety of ways (Dionne, 1996). Although the primary output of this study is the enhanced framework, and its usage has been documented in section 5.4.3 (p197), the other outcomes could be equally valuable. It is argued that the findings of this study could be used by anyone involved in project management training, the following sub-sections consider different stakeholder requirements, practical application and different ways in which these groups can utilise these outputs by concentrating on the three primary groupings in any provision of training: training coordinators, training course designers and course instructors.

5.6.1. Training coordinators

‘Training coordinators’ have been classed here as a stakeholder grouping including all of those within an organisation involved in the commissioning, procuring and administration of training. Their remit within an establishment is typically to organise training that addresses employee wants and organisational needs to encourage both professional career development and increased operational efficiency.

It is hoped that this group can use the findings of this study in two ways: first, using the understanding of participant perceptions of value to plan alignment of provision to needs and better marketing of courses within an organisation; and, second, use the enhanced evaluation framework as a method of investigating perceived value of courses within their customer base (the course attendees). Both these notions will be addressed in turn.

The features affecting value were subdivided into three categories: pre-training, training and post-training (Table 5.1, p184). It is suggested that these findings can be used to inform the planning process in order to create a better environment for delivering the training and subsequent training transfer. By initially focusing on commissioning the correct courses, consideration should be given to participant experience and expectation to ensure that a homogenous group of individuals are encouraged to attend the course. This ensures similar levels of competence and understanding, and allows the course to progress at a pace and level appropriate for all of the attendees rather than being too simple for some and too complex for others. The purpose of the training (education of internal systems, or training in techniques) will then inform the choice of instructor, or training provider, as this is perceived as key in influencing participants' value assessments. Having considered these factors and positioned the training in context, the course itself can be determined using the features identified under the heading 'training'. For project management training, the elements from which the participants perceived the most value were the practical exercises to encourage the application of the new skillset and demonstration that the techniques can be transferred to the working environment and are not solely theoretical. In commissioning the training, these factors should be central to the contractual brief or statement of work given to the supplier. Additionally, these are tangible outputs that can be assessed by the customer and demonstrated by the training provider as proof of compliance with the specification. Lastly, the training coordinators can consider the context within which the training will be delivered and whether or not the conditions exist to allow the training to be transferred to the workplace. It has been established in the literature and reaffirmed in this study that motivation to

transfer, supervisory support and opportunity to apply are key features post-training that influence a participant's perception of value. While the training coordinators may not be able to influence these factors, they can recognise whether they exist. Their absence may indicate that training, from an organisational perspective, is not a worthwhile undertaking as the conditions do not exist to allow new learning to manifest in the workplace. This would save unnecessary expenditure by the organisation.

The second key usage for coordinators is to use the evaluation framework as a complementary means of assessing the training programme. Most organisations have a standard method of evaluating their training provision, however by utilising the enhanced framework in the manner described in section 5.4.3 (Operationalising the framework, p197) it is suggested that a more holistic evaluation is possible which considers both organisational impact (traditional evaluation) with perceived participant value.

5.6.2. Training course designers

Although many project management training courses, especially from smaller providers, are written by the facilitator, instructional design is a different role in the training process with its own unique issues and commitments. In this context the 'training course designers' represent those who construct the course content, material, method of delivery, case study or exercises and write any accompanying material. From their perspective the main focus will be on the features under the 'training' heading that influence value (practical exercises, applicable skillset and transferable material), however consideration of both pre- and post-training can also be beneficial.

In terms of scoping the training, an understanding of both participant experience and expectations is crucial to any designer. Failure to appreciate this can result in producing a course that does not match requirements or is at the wrong level of complexity for the desired audience so attention should be paid to both features. Similarly, the previous themes of purpose, approach and content are key to positioning the course correctly for the attendees and organisational requirements. As such, consideration must be given to these identified features and themes.

The most obvious application of the findings to practice from the point of view of training course designer are the features that were identified under the heading of 'training'. It is suggested that these features inform the pedagogical approach when designing the all aspects of the training delivery. Additionally, by focusing on a learning method that is specifically designed with the 'indicators of value' (Table 5.2) foremost in consideration, it will make any subsequent evaluation of the course using the enhanced framework potentially easier to implement. It will also ensure a training course that is matched to the value propositions of the course participants (those who will be utilising the learning) rather than a training or HR function who are often several steps removed from the end result.

For post-training provision there is little a designer can do to influence supervisory support or opportunity to apply, however the learning and materials can be structured in such a way to encourage motivation to transfer. This links back to making both content and takeaway materials transferable, thus encouraging participants to utilise the learning within their own operating environment.

Finally, although unlikely to be conducting the training evaluation themselves, consideration of (during the planning stage) and response to (post-training) the enhanced evaluation framework can result in a training experience that is more aligned and better suited to the needs of participants and their own personal aspiration. The focus is no longer only organisational improvement but within personal development plans it allows consideration of individual values.

5.6.3. Course instructors

‘Course instructors’ are the individuals responsible for delivering the training event so although an understanding of pre-training features are important the focus of the instructor is the training itself. If the training has been carefully commissioned and designed by the coordinators and designers using the features that affect perceptions of value, the instructors’ main focus using the findings of this study will be to ensure that the indicators that demonstrate value are delivered upon. Some of these are possible within the training room whereas others need to be primed for the return to the workplace.

Having followed the suggestions in the previous two sub-sections, the training course should be aligned to reflect participants’ perceptions of value within a project management training context. An important aspect to consider is theme of method of facilitation that was considered both within the literature and, latterly, in the findings. The main benefit, and the element highlighted as being most valued by participants, was the knowledge and experience of the instructor. By aligning the delivery of the training within the context of their experience and delivering through example and anecdote real, applicable uses of the project management learning, the instructor will result in encouraging many of perceived

value indicators as defined in Table 5.2. Considering ‘contextualising content’ suggests the instructor to prepare for the specific audience because although much of the learning is generic it needs to be transferable into the working environment of the participant. Also, by understanding that the most valued output for some participants will be ‘positive affirmation’ suggests that while the instructor is delivering some potentially new concepts there is a cognisance that for some in the room it is confirmation that they are already performing their role correctly that is of most value. With the support of the previous phases, focusing on these two primary indicators, and with the overall aim of increasing confidence of participants, the training has been structured from conception through to delivery to align closely with individual perceptions of value.

Finally, although usually not administered by the instructor themselves, the evaluation of a course or programme is hugely significant to the instructor. Using the enhanced evaluation framework in the manner described in section 5.4.3 (Operationalising the framework, p197) provides a tangible 360 demonstration that the provision, design and delivery of the training have been aligned and subsequently applied by the participant. The attendees feel (through confidence, reduced anxiety and positive affirmation) that the training has been beneficial and it can be shown more tangibly through enhanced skills, increased effectiveness and applied learning. Personal, rather than organisational, development should be focused on improvement and change to the individual. Utilising the findings of this study allow the focus to be on the participant, their development and what they value rather than attempting to prove tenuous links to operational improvement.

CHAPTER 6: CONCLUSIONS

6.1. Introduction

This concluding chapter reviews the extent to which the aim and objectives of this research have been achieved and whether the questions posed have been answered. It also reflects on the strengths and limitations of the research, and considers the contribution to theory and contribution to practice. The chapter ends by identifying areas for future research.

6.2. Achieving the aim and objectives

6.2.1. Aim

The aim of this research was to develop an evaluation framework for project management training, which is sensitive to individual participants' perceptions of value. This aim has been achieved through the development of the dual-aspect framework consisting of the method (conversational interviews) informed by the project management training evaluation guide. The framework has been developed through the use of similar interviews and the findings indicate that it reflects the concerns of both project management training participants and literary scholars. From the taxonomy, nine features that influence an individual's value assessment of project management training were identified: participant experience, participant expectation, instructor credibility, practical exercises, applicable skillset, transferable material, motivation to transfer, supervisory support, and opportunity to apply. From these factors, ten indicators developed that allow the evaluator to evidence participant value: achieved participant goals, contextualised content, received positive affirmation, enhanced skills, increased

effectiveness, increased self-efficacy, applied learning, increased confidence, improved communication, and reduced workplace anxiety. Placing the individual, rather than the organisation, at the heart of the evaluation has permitted investigation and understanding of participants' perceptions of value.

6.3. Objectives

6.3.1. Objective 1: To undertake a critical review of the literature on project management training and training evaluation frameworks

The first research objective was achieved and discussed in Chapter 2. A number of key arguments were identified (Appendix I). There were two primary areas of literature reviewed: project management training and training evaluation. The concerns pertaining to project management training were classified using the categories of importance, method, purpose, approach, content and trainee. It was also identified that there is a debate running through many publications on the field of project management training about the opposing opinions of practitioner versus scholar and the need to bridge the gap. Training evaluation was further sub-divided into a discussion on 'traditional' frameworks based on the Kirkpatrick model and 'alternative' frameworks. These two areas of literature were synthesised to consider the value component and from that discussion the two research questions were developed.

6.3.2. Objective 2: To draw on qualitative techniques to explore the perspectives of project management course participants on the value of the training

The second objective was achieved by interviewing thirteen course participants using a qualitative, conversational interview method. The concept was to place the

individual at the heart of the assessment and, rather than attempt to assess organisational impact like most existing frameworks, understand the perceived value of the training by the participant. Two interviews were conducted separated by 6-12 months, with the analysis of the first round informing a more structured second, confirmatory interview. These were coded using the derived taxonomy which identified that the concerns of participants when evaluating the courses were similar to the issues evident in the literature on project management training, thus addressing the first research questions. Nine key features were identified as being important for participants when evaluating the personal value of project management training and, from these, ten key indicators for the identification of value in the evaluation of project management training were developed answering the second research question

6.3.3. Objective 3: To develop an enhanced framework for evaluating project management training which is sensitive to participants' perceptions of value through the use of a qualitative methodology.

The final objective of this research has been achieved by developing a framework that draws on a range of qualitative techniques to allow a deeper understanding of a participant's perception of value. This has been achieved by placing the individual at the centre of the evaluation and attempting to investigate the effect and influence of the training on them rather than attempting to assess organisational impact. This encourages investigation not only into what it valued, but also why and how it holds particular worth to the participant.

6.4. Answering the research questions

6.4.1. RQ1: How do participants perceive value in the context of project management training?

It was found that most existing training evaluation frameworks seek evidence of organisational impact as an affirmation of their success. This research identified that for project management training within a university setting, this focus could deliver misleading results as each participant has their own reasons for attending and will use the learning in a variety of different ways. It is argued that, rather than focusing on organisational impact, positioning the individual at the heart of the evaluation may be more suitable for project management training in this context. From this basis a qualitative evaluation framework has been developed that focuses on understanding participants' perceptions of the value of a training event.

6.4.2. RQ2: What are the key indicators for the identification of value in a participant's evaluation of project management training?

Nine features developed from the research that influence an individual's value assessment of project management training: participant experience, participant expectation, instructor credibility, practical exercises, applicable skillset, transferable material, motivation to transfer, supervisory support, and opportunity to apply. These are evident at different stages throughout the training process and are the elements upon which individuals place the highest value. In order to evaluate whether these value propositions have been satisfied it was necessary to develop ten key indicators for the identification of value in the evaluation of project management training were developed answering the second research

question: achieved participant goals; contextualised content; received positive affirmation; enhanced skills; increased effectiveness; increased self-efficacy; increased confidence; applied learning; improved communication; and reduced workplace anxiety. The features were developed in the literature and, when evidenced in the interview testimonies against these indicators, make up the evaluation guide of the newly developed framework.

6.5. Reflection on strengths and limitations of the research

Many of the limitations of this research have been discussed, however the adoption of an interpretivist research position has a major influence on this study. This resulted in the research data collection and analysis being exposed to subjective views and personal perceptions. However, as the aim of this study was being sensitive to participant perceptions and gaining understanding of individual points of view, it was important to approach the research in this manner.

The proposed framework is simple to understand and apply and, as such, should make it attractive to implement (Alliger *et al.*, 1997; Bates, 2004). One of the limitations of this research is that, although a similar method was adopted to conduct the research, until the final framework is put into practice it is not possible to justify this claim. It was not one of the objectives of this research to execute the framework, however this would be an obvious area for further research. Another major limitation with this study was the researcher as an 'insider'. This issue has been mitigated by the recognition that the issues identified by participants align to any existing within the literature. For future research it would be recommended that the instructor and researcher were different people which would ensure greater objectivity.

6.6. Contribution to theory

This study is an academic work with the scholarly requirement for theory but professionally focused on applicable practice. In doing so it begins to answer the calls of Giangreco *et al.* (2010) and Vermeulen (2007) to attempt to bridge the academic-practitioner divide. The proposed framework builds on the previous work in the field (Brinkerhoff, 2003) but also augments it by providing this opportunity for deeper interrogation of the reasons behind the evaluation scores. It places the individual at the heart of the assessment and is primarily concerned with impact on them rather than organisationally, which respects the request of Floricel *et al.* (2014) for greater awareness of social relations and human aspects within project management research.

In covering the provision of external providers in a university setting this work is contributing to an area of research that is currently very sparse (Hassi *et al.*, 2011; Lebcir *et al.*, 2008). Furthermore, two primary areas of literature were reviewed in this thesis: project management training and training evaluation. It has been established that little work exists that combines these two areas (Lee-Kelley & Blackman, 2011; Nickols, 2005; Tharenou *et al.*, 2007), however the findings of this research suggest that the concerns that participants experience while evaluating a training course align with those expressed by authors of project management training literature. It is argued that by identifying this crossover, this thesis is contributory to both fields of study. Summaries of the key arguments, emergent ideas and findings are detailed in Appendices IX and X.

6.7. Contribution to practice

Operationalisation of the proposed framework, which is the main contribution to practice of this research, is detailed in section 5.4.3 (p197) with the practical based contribution expanded on in section 5.5, p200. Additionally, the ideas developed in this research are already being put into practice by Fistral as they discuss project management training provision with existing and potential customers. The organisation is using the framework (particularly the project management training evaluation guide) when discussing training requirements and delivery to attempt to understand individual perceptions of the training and identifying the elements viewed as most valuable by participants. Referencing the guide allows for greater recognition of the individual factors in project management training, and it has opened up analysis of discussions that have previously only been anecdotal. For example, the evidence in this research now supports the use of generic content within a university environment. This position can now be defended on the basis that each participant has different experiences, expectations and aims from attending a training course, and making material specific to one individual risks alienating the other participants. This is particularly relevant in a university setting where attendees are invariably working on different projects, in different fields and within different subject areas.

The other major finding that is already being put into practice is the psychological or emotional aspects that an individual focus provides. Awareness of increased confidence, reduced stress or anxiety, and improved self-efficacy in an existing skillset have hitherto been overlooked by Fistral's customer's course evaluations. Bringing an awareness of these aspects (particularly the notion of affirmation) has been revolutionary in the way in which some customers consider the effectiveness

of project management training. It is no longer sufficient to be an expert in an area, but now one must deliver benefit through that expertise. The increased confidence brought by affirmation allows demonstration of the ability show an individual's value to a project, department or institution.

It is proposed that the developed framework could have several further uses. Firstly, instructors and designers could gain a deeper understanding of the participants when initially conceptualising a project management training course. By appreciating the elements that attendees value most highly the training can be designed to focus on these areas thereby delivering greater value to participants which could result in increased transfer of learning. For training coordinators it can be used for marketing and generating interest in training provision. A clear understanding of the values of the participants can assist in choosing the best provision to offer.

Additionally, the new framework provides a method through which effective evaluation and feedback mechanisms can be developed. The interview approach is similar in style to that of Brinkerhoff (2003), however the proposed framework provides guidance and structure for the interviewer/researcher to permit more organised questioning. Through the deep understanding of participants values it is possible to evaluate meaningful feedback that is participant-led (i.e. assessing the value from their perspective) rather than organisationally-focused evaluation which is often generic and highly quantitative.

6.8. Directions for future research

This research has focused on a small number of participants in project management training within a university setting and has developed an enhanced

evaluation framework. There are two obvious next steps for research. The first is to thoroughly test the proposed framework against courses run by different instructors. The aim would be to demonstrate that the training concerns are valid to all project management courses within this setting. The second interesting direction that future research could take is to consider whether the evaluation framework could be utilised for different subject areas within a continued professional development (CPD) programme. Investigating whether the concerns identified in this study are pertinent to participants in other courses and workshops and whether, therefore, the framework can act as guidance when commissioning, developing and delivering other courses within a CPD programme.

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Appendix I: Summary of main literary arguments and authors

	Argument(s)	Key authors(s)
Importance	Project management ability is derived primarily from experience not training	<i>Davies, 2000</i>
	Existing evaluation frameworks may not adequately assess project management training	<i>West, 2003</i> <i>Tasca et al., 2010</i>
	Training can help to improve project management ability	<i>Edmonds, 2010</i> <i>Eskerod, 2010</i> <i>Lee-Kelley & Blackman, 2011</i> <i>Suikki et al., 2006</i>
	An individual's perceived value is strongly influenced by their expectations	<i>Santos & Stuart, 2003</i>
Method	It is preferable for project management training facilitated by those with a robust theoretical grounding in the subject	<i>Crawford et al., 2006</i> <i>Thomas & Mengel, 2008</i> <i>Winter et al., 2006</i>
	Project Management training is best facilitated by experienced practitioners	<i>Edmonds, 2010</i> <i>Loo, 1996</i> <i>Pant & Baroudi, 2008</i> <i>Teplitz, 2001</i>
	The experience of practitioners lend credibility to the learning and enhance the perceived training value	<i>Hassi et al., 2011</i> <i>Kouzes & Posner, 2005</i>
Purpose	Project Management training outcomes should deliver thorough subject understanding	<i>Thomas & Mengel, 2008</i>
	Project Management training outcomes should focus on workplace applicability	<i>Locht, 2013</i> <i>McDonald, 2010</i> <i>Stoyan, 2008</i>
Approach	Project Management training is ineffectual due to its simplicity Project Management is based too heavily on professional bodies of knowledge	<i>Ojiako et al., 2011</i> <i>Thomas & Mengel, 2008</i> <i>Zhang & Xu, 2008</i>
	Project Management technique is not complex, so training reflects this Project Management should be based on the tools used by practitioners	<i>Barron (2005)</i> <i>Córdoba & Piki (2011)</i> <i>Edmonds (2010)</i>
Content	Many academic project management programmes are theoretically rigorous but lack 'real world' applicability	<i>McDonald, 2010</i> <i>Ríos et al., 2010</i> <i>Vermeulen, 2007</i>
	Project Management training material should be primarily practically-based	<i>Davies, 2000</i> <i>Divjak & Kukec, 2008</i> <i>McCreery, 2003</i> <i>Pant & Baroudi, 2008</i> <i>Rae, 2010</i> <i>Zwikael & Gonen, 2007</i>
	Close alignment of material with attendees working environment is desirable	<i>Grossman & Salas, 2011</i>
	Generic material is preferable as it allows participants to consider their own method of application	<i>Ellis et al., 2005</i>
Trainee	Self-efficacy is key to improved learning	<i>Sadler-Smith, 2006</i> <i>Salas & Cannon-Bowers, 2001</i>
	Perceived value of training is strongly influenced by individual, personal	<i>Holton, 2005</i> <i>Noe, 1986</i>

	characteristics	<i>Velada & Caetano, 2007</i>
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Summary of main literary arguments and authors (continued)

	Argument(s)	Key authors(s)
Evaluation	Understanding the purpose is highly important for meaningful evaluation	<i>Alliger et al., 1997</i> <i>Bryson et al., 2011</i> <i>Lee-Kelley & Blackman, 2011</i> <i>Powell & Yalcin, 2010</i>
	There are two approaches to training evaluation 'operational' and, 'strategic' and the use of either may produce differing results	<i>Cifalino & Baraldi, 2009</i>
Evaluation frameworks	Understanding the influences of contextual variables (for example, personality or motivation) cannot be easily achieved using a traditional evaluation framework	<i>Galloway, 2005</i> <i>Holton, 1996, 2005</i> <i>Lee-Kelley & Blackman, 2011</i>
	Traditional evaluation frameworks: make an assumption of cause and effect; focus on increasing importance through the levels; and, are overly simplistic.	<i>Alliger & Janak, 1989</i> <i>Bates, 2004</i> <i>Brinkerhoff, 2006a</i> <i>Giangreco et al., 2010</i> <i>Holton, 2005</i>

Appendix II: Summary of concerns developed from arguments

	Concern(s)
Importance	<p>Whether participant expectations and prior experiences influence their evaluation of project management training</p> <p>Whether there is a requirement for a bespoke framework for evaluating project management training</p>
Method	<p>Whether the participants have a preference for theoretically or practitioner-led training and the reasons for their inclination</p> <p>Whether participants value the rigour evident in many of the formal HEI offerings or have greater appreciation for the practicality more commonly offered by an external provider</p> <p>Whether there a perceived increase in credibility attached to the learning as a result of it being practitioner-led</p>
Purpose	Whether participants themselves make any distinction between a course that is educationally or training focused
Approach	Whether participants themselves have a preference for subject matter being practice-led or theory-based
Content	<p>Whether participants have a preference for application or theory in the course material</p> <p>Whether participants hold strong opinions on the linkage of material to their specific work environments or are they satisfied with generic content</p>
Trainee	Whether any of the identified trainee characteristics are particularly significant (or not) in project management training

	Concerns(s)
Evaluation	<p>Whether investigating how people value training could be useful, in addition to what they value</p> <p>Would identifying the human bias and the particular reasons for it provide insights into why people value the same course differently</p> <p>Whether it is possible to utilise a single framework regardless of goal, purpose and audience of the individual evaluation</p> <p>Whether project management training evaluation should be ‘strategic’ or ‘operational’</p> <p>Whether an alternative evaluation framework is required for project management training</p>
Evaluation Frameworks	Whether Brinkerhoff's (2003) Success Case Method could be used as a basis for a new project management training evaluation framework

Appendix III: Trainee influencing factors

		Noe & Schmitt (1986)	Warr & Bunce (1995)	Cheng & Ho (2001)	Russ-Eft & Preskill (2001)	Holton (2005)	
Important influencing factors	Demographic	-	Age Educational qualifications Job tenure	-	Age	-	
	Attitudinal	Pre-training	Expectancies Career /Job Attitudes Motivation to learn	General attitude Specific motivation Interpersonal anxiety	Career/Job Attitudes Organisational commitment	Goal setting pre-training Motivation to learn Readiness for training Job attitude and commitment Expected utility Personality factors Choice to be in training	Learner readiness Positive personal outcomes Negative personal outcomes
		During training	Reaction to training	-	Reaction to training Training performance	Personality factors Enjoyment of experience	-
		Post-training	Reaction to skills assessment	Reaction enjoyment Reaction usefulness Reaction difficulty	Self-efficacy	Personality factors Self-efficacy	Resistance/openness to change Performance self-efficacy Performance coaching Performance-outcomes expectations
	Experience	-	Management experience	-	Prior training experience Work history	-	
	Application and Transfer	Motivation to transfer	-	Post-training interventions Transfer outcome	Motivation to transfer learning	Motivation to transfer Personal capacity for transfer Perceived content validity Transfer effort-performance expectations Transfer design	
	Learning style	Learning	Learning task anxiety Analytical learning strategy Behavioural learning strategy Learning self-efficacy	Learning	Ability to learn Learning task anxiety	-	
	Support	Locus of control Environmental favourability	-	Locus of control Supports in organisation Continuous-learning culture	Locus of control Involvement in programme's design Perception of organisation Opportunity to apply learning	Peer support Supervisor support Supervisor sanction Opportunity to use	

Appendix IV: Interview 1 schedule

A few preliminary housekeeping questions...

- Do you understand the aims of the research?
- Do you have any concerns and interests you'd like to raise?
- Are you happy with the ethical approval?

Demographic

- Can you tell me a little bit about yourself?
 - Name, age, nationality
 - Background, education
 - Experience, previous roles, career path
 - Current role, discipline, position at time of training

Training

- Reasons for enrolling on PM course
 - Reasons for attending the initial training
 - Desired/expected outcomes
 - Reasons for enrolling on subsequent courses
 - Comparison with other training courses
- Experiences or thoughts on the course
 - Structure, content, approach, instruction
 - How did you personally assess this training?
- Learning transfer
 - Anything changed since the courses
 - Application of learning
 - If you didn't use any, why did you proceed through process?
- Value
 - How do you personally assess the value of training?
 - In your view, what makes a training course worthwhile or not?

****Focus on "why" – reasons for answers. Not just "what"*****

Final questions

- Do you think there's anything we've missed that we should talk about?
- If you were reading this thesis, is there anything you'd interested in discovering? What?
- Do you feel there are any constraints placed on you that shaped your opinions for this discussion?
- How was the interview for you? Time, location, structure, relaxed? Any recommendations?
- Finally, do you have any questions for me?

Thank you very much!

Useful phrases:

Tell me all about...

Can you describe that to me?
What did you think/feel about that?

Encouragement:

That sounds interesting
How? Why not? Why was that? etc.

Earlier you were saying...

Going back to...
Before we move on...

Appendix V: Interview 2 schedule

A few preliminary housekeeping questions...

- Do you understand the aims of the research?
- Do you have any concerns and interests you'd like to raise?
- Are you still happy with the original ethical approval?

Confirmatory questions

Some quick-fire questions...

- Do you believe training helped you or not?
- Has your ability to implement the learning after the course retrospectively changed your initial value of it (positively or negatively)?
- Does whether a course meets your expectations influence your evaluation of it?
- Should PMT be facilitated by full-time trainers/lecturers or practitioners?
- What is more important to you: increased understanding, ability to apply or a mix?
- Should PMT focus on bodies of knowledge (i.e. passing professional exams) or based on real practice?
- Have you attended other PMT? If so, can you draw a comparison?
- What is more important to you: lecture, practical or a mix?
- Should content be specifically tailored for a particular discipline or not?

Final questions

- Do you think there's anything we've missed that we should talk about?
- If you were reading this thesis, is there anything you'd interested in discovering? What?
- Do you feel there are any constraints placed on you that shaped your opinions for this discussion?
- How was the interview for you? Time, location, structure, relaxed? Any recommendations?
- Finally, do you have any questions for me?

Thank you very much!

Useful phrases:

Tell me all about...

Can you describe that to me?
What did you think/feel about that?

Encouragement:

That sounds interesting
How? Why not? Why was that? etc.

Earlier you were saying...

Going back to...
Before we move on...

Appendix VI: Training course programme descriptors

The following are the course descriptors provided for marketing and advertising the training programme in the institutions investigated in this study.

Project Management in the Real World (PMRW 2-day)

A comprehensive introduction to the process of managing projects and the tools to assist in planning and tracking progress; this course is intended to be immediately applicable to planning and managing commercial and/or research projects. It covers the theory and principles of project management within the context of the Project Management Institute.

During this 2-day course, participants will:

- Learn the basics of the project planning process and receive a set of checklists and guidelines that you can use immediately on any project
- Appreciate the fundamental principles of a well-led and well directed project, such as identifying and scheduling tasks, activities, milestones and understanding and managing stakeholders
- Be aware of the critical factors that will influence whether a project will be successful or not, including identifying and managing risk
- Explore tools for clearly defining scope and managing expectations
- Learn techniques for more accurate estimating
- Follow a case study from initial conception through to full project initiation and implementation using practical, group-based exercises to reinforce and enhance the skills learned
- Create work breakdown structures, network diagrams, critical path analysis, Gantt charts and other techniques that ensure robust project control

Prerequisites: *None*

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Project Risk Management

A solid grounding in the major tools and techniques to identify, quantify and plan for risks. Delegates will also learn to identify the likely areas of risk, to apply a standard methodology for quantifying risks and to develop solutions and contingency. This event covers the theory and principles of project risk management within the context of the Project Management Institute.

During this 1-day course, participants will:

- Learn creative methods for identifying risks
- Be aware of the critical factors that will influence whether a project will be successful or not, including identifying and managing risk
- Appreciate how to quantify and deal with various categories of risk
- Estimate and assess likelihood, impact, probability, exposure and costs of risks
- Respond to risks and learn how to justify risk-related costs
- Create project Risk Registers and practice mitigation and avoidance strategies
- Use a 5-point grid for assessing risk, and practice 3-point estimating
- Learn how to run a project with a Risk Management Plan
- Use practical, group-based exercises to reinforce and enhance the skills learned

Prerequisites: *Project Management in the Real World*

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Advanced Project Management

The delegate will be introduced to tried and tested management techniques for dealing with complex and ill-defined projects. It focuses on the remaining material needed for the CAPM exam.

During this 1-day course, participants will:

- Learn about initiating complex projects and programmes including reconciling stakeholder priorities and constituting the project board
- Prioritise multiple projects, establish the project slate and calculate the cost of changed priorities
- Be aware of phased project delivery, distinguish needs and wants and avoiding "gold plating"
- Understand establishing a project office, defining function and responsibility, recruiting appropriate staff and identifying training and certification needs
- Explore how to manage change effectively in a project environment
- Learn effective work allocation including scheduling multiple tasks and Goldratt's Theory of Constraints
- Understand different project types and alternative project management methodologies
- Learn to employ Earned Value Analysis (EVA), calculating CV, SV, CPI, SPI, and predicting likely outcomes
- Appreciate ethics and professionalism in projects and the need to comply with rigorous standards of behaviour

Prerequisites: *Project Management in the Real World + Risk Management.*

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CAPM Preparation Day

This course provides revision of the project management tools and techniques necessary to pass the CAPM examination. It will touch on the necessary background theory required for the exam, however it will focus on the techniques required to score highly in the 150 multiple choice question format. The participant will gain valuable skills in answering CAPM-style questions by experiencing sample exams. Pre-course revision of chapters 1-3 of the Guide to the Project Management Body of Knowledge (PMBOK) is strongly encouraged.

During this 1-day course, participants will:

- Understand the structure of the PMBOK Guide including the 5 Process Groups, the 10 Knowledge Areas, the 47 Processes and the relationships between them
- Learn the importance of the Initiating and Closing Processes
- Be aware of the iterative nature of the Planning, Executing and Monitoring & Controlling Processes
- Learn techniques to easily solve the guaranteed Earned Value questions
- Cover the PMI terminology required to pass the exam
- Sit three sample examinations
- Learn how to identify the "gotcha" answers in the multiple choice questions
- Complete a computer-based sample exam
- Learn when and how to schedule Final Exam, exam format, and tips for "on the day"

Prerequisites: *Project Management in the Real World + Risk Management + Advanced PM.*

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Appendix VII: Participant information sheet

Edinburgh Napier
UNIVERSITY



Information Sheet for Participants

Working Title: An investigation into the factors that affect an individual's experience of project management training

My name is Fraser Robertson and I am a research student from the Business School at Edinburgh Napier University. As part of my doctoral degree, I am undertaking a research project for my thesis. The working title of my project is: An investigation into the factors that affect an individual's experience of project management training

The aim of the study is to explore a new way of evaluating project management training by looking at how individuals assess training and any subsequent impact on their professional and personal lives.

This research is being funded by Fistral Training and Consultancy Ltd. (Fistral)

I am looking for volunteers to participate in the project. Participants will have attended Fistral's full Certified Associate in Project Management (CAPM) training programme and have either taken, or be intending to take, the CAPM examination.

If you agree to participate in the study, you will be asked to take part in two recorded interviews. The first interview will last approximately one hour, the second possibly a little longer. The researcher is not aware of any risks associated with this process. You will be free to withdraw from the study at any stage, you would not have to give a reason.

You can choose to have the data anonymised, but you may be identifiable from tape recordings of your voice. However these recordings will only be heard by the researcher, his supervisory team and the transcriber. If you wish to be anonymised, your name will be replaced with a pseudonym, and it will not be possible for you to be identified in any reporting of the findings. Following each interview you will be sent a transcribed copy of the interview (anonymised if appropriate) for approval at which point you are free to change your testimony, advise of anything else you would like implemented to protect your privacy, or withdraw from the study completely. The recordings will be kept until the end of the examination process, following which they will be destroyed.

The results may be published in a journal or presented at a conference.

With your consent, Fistral (as funders) would like to be able to use the findings of the research (possibly including your data) to promote their organisation and/or future training programmes. You can choose for your data to be used in this way or not without compromising your participation in the research.

If you would like to contact an independent person, who knows about this project but is not involved in it, you are welcome to contact Dr Janice McMillan (Programme Director), Edinburgh Napier University Business School, Craiglockhart Campus, Edinburgh EH14 1DJ. Telephone: 0131 455 4340. Email: j.mcmillan@napier.ac.uk

If you have read and understood this information sheet, any questions you had have been answered, and you would like to be a participant in the study, please now see the consent form.

Appendix VIII: Consent form

Consent Form

Edinburgh Napier
UNIVERSITY



Working Title: An investigation into the factors that affect an individual's experience of project management training

**Please initial
box**

I have read and understood the information sheet and this consent form. I have had an opportunity to ask questions about my participation.

I understand that I am under no obligation to take part in this study and that I have the right to withdraw from this study at any stage without giving any reason.

I agree to the interviews being audio recorded.

I agree to participate in this study.

**Please tick
box**

Yes No

I wish any data and personal information about me to be anonymised.

I consent to Fistral using data in the resulting thesis or publications to promote their organisation and/or similar training programmes.

Name of Participant

Date

Signature

Name of Researcher

Date

Signature

Contact details of the researcher

Name of researcher: Fraser Robertson
Address: Postgraduate Student
Edinburgh Napier University Business School
Craiglockhart Campus, Edinburgh EH14 1DJ
Email / Telephone: 10022045@napier.ac.uk / 0141 636 0290

Appendix IX: Summary of emergent ideas within the literature review

	Emergent ideas
Importance	A life context approach to the interviews allows consideration of memory and features missing from many traditional evaluation frameworks
	Dual interview 'life story' method allows investigation of memory and its reinforcement by subsequent experience
Method	Where the experience is accrued (internal or external to the organisation) is only relevant when also considered with the content of the course
	For project management training, facilitators external to an organisation are preferred as they provide an independent position and different perspective that can be learned from
Purpose	Many participants experienced increased self-efficacy in existing skills but traditional evaluation frameworks only focus on new skills
	Attendees do not attend training to learn specifically about a subject, they want to become better at their job
Approach	The majority of participants attended to increase their ability to work effectively and efficiently rather than to become project managers or learn specifically about project management
Content	-
Trainee	Using IMPAC as a categories negates the requirement for a specific 'trainee' grouping as the other classifications address the issues through conversational interview.

Appendix X: Research concerns and summarised findings

	Concerns	Summarised findings
Importance	<p>Whether participant expectations and prior experiences influence their evaluation of project management training</p> <p>Whether there is a requirement for a bespoke framework for evaluating project management training</p>	<p>The evidence indicates that experience both before and after the event assist in embedding the learning and raising the value of the course in the mind of the participant.</p> <p>For this study the training was delivered to participants from differing backgrounds with diverse experiences and expectations where the focus was on transferability of generic skills to multiple environments. As such, focusing on learning outcomes, organisational benefit or goal-based assessment (as covered by existing methodologies) would be unsuitable as these are not clear at the outset. This suggests that for this type of project management training a bespoke framework would be beneficial.</p>
Method	<p>Whether the participants have a preference for theoretically or practitioner-led training and the reasons for their inclination</p> <p>Whether participants value the rigour evident in many of the formal HEI offerings or have greater appreciation for the practicality more commonly offered by an external provider</p> <p>Whether there a perceived increase in credibility attached to the learning as a result of it being practitioner-led</p>	<p>The participants indicate that they place a high value on the facilitator having practical experience of project management. This was predominantly due to that the expertise brought by actually doing the job is far greater than simply having an understanding of the subject matter.</p> <p>Most of the interviewees stated an inclination towards a trainer external to the organisation as they have the ability to give provide a different, neutral perspective. However, this was accompanied by the caveat that internal involvement may be preferable if the aim of the training was to be institutionally-specific.</p> <p>The participants considered that the background, history and work experience of the facilitator in a project management training environment has a large influence on the perceived value of the training being delivered.</p>
Purpose	<p>Whether participants themselves make any distinction between a course that is educationally or training focused</p>	<p>The participants express a strong preference for the applicability that training provides. Even the theoretical understanding needed to have a practical use (e.g. use of terminology in the workplace).</p>
Approach	<p>Whether participants themselves have a preference for subject matter being practice-led or theory-based</p>	<p>Participants have greater appreciation of a link to practice rather than theory as, in this setting, the vast majority are looking only at increasing their self-efficacy and not at becoming project managers.</p>

<p>Content</p>	<p>Whether participants have a preference for application or theory in the course material</p> <p>Whether participants hold strong opinions on the linkage of material to their specific work environments or are they satisfied with generic content</p>	<p>The evidence finds that the participants again expressed a strong preference for applicability of material. They highlighted that they perceived there to be real value in not only discussing techniques but having the opportunity to apply them within a training environment</p> <p>The participants found that a generic case study was helpful in assisting and embedding techniques and they were able to make the link with their current role themselves.</p>
<p>Trainee</p>	<p>Whether any of the identified trainee characteristics are particularly significant (or not) in project management training</p>	<p>Many of the attributes identified in the literature were alluded to by participants as having an impact on their evaluation of project management training but particularly noteworthy were experience, self-efficacy and confidence.. However, these were all in the context of the other IMPAC categories and are discussed in those sections of the chapter.</p>
<p>Evaluation</p>	<p>Whether investigating how people value training could be useful, in addition to what they value</p> <p>Would identifying the human bias and the particular reasons for it provide insights into why people value the same course differently</p> <p>Whether it is possible to utilise a single framework regardless of goal, purpose and audience of the individual evaluation</p> <p>Whether project management training evaluation should be 'strategic' or 'operational'</p> <p>Whether an alternative evaluation framework is required for project management training</p>	<p>Assessing training at an organisational level often obscures reasons for people attending, valuing and, subsequently, applying learning from a training course. Understanding how they assess value in a training course can inform how the course is designed, delivered and, ultimately, evaluated.</p> <p>Similar to above, understanding human subjectivity allows focus on the individual experience pre-, during- and post-training. This assists in understanding how they assess value in a training course can inform how the course is designed, delivered and, ultimately, evaluated.</p> <p>From the evidence of these interviews, every participant has different expectations and uses of the project management learning which are not always organisationally dedicated. Therefore, focusing on personal improvement and unanticipated effects may produce more meaningful data.</p> <p>A decision needs to be made as to the purpose of any evaluation. Within the setting of this research the purpose appears to be neither 'strategic' or 'operational' but 'individual'</p> <p>The findings suggest that existing organisationally-focused frameworks do not adequately evaluate project management training in the setting of the research and that an individual-centred approach would be beneficial</p>

<p>Evaluation frameworks</p>	<p>Whether Brinkerhoff's (2003) Success Case Method could be used as a basis for a new project management training evaluation framework</p>	<p>Using the influences of exploratory qualitative research to enhance the SCM places the individual at the centre of the evaluation which the evidence indicates gives an evaluation which is more sensitive to participants values than other existing frameworks.</p>
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