The Soft Skills of Project Management:
A view from Diploma graduates

Thesis submitted for the award of Master of Education

Queensland University of Technology
School of Learning and Professional Studies
Faculty of Education

Joe Campana
GradDipTertEd, GradCertTertEd

2010
KEYWORDS

*Communications management* - ensures the timely and appropriate generation, collection, dissemination, storage and disposal of project information through formal structures and processes.

*Diploma of Project Management* – a nationally recognised qualification aimed at practicing project managers which provides them with training in the key knowledge areas of project management.

*Graduates* – those learners who have gained a qualification from a tertiary or higher education institution.

*Project management* - the discipline of planning, organising, and managing resources to bring about the successful completion of specific project goals and outcomes.

*Registered Training Organisation* - a vocational education organisation that provides students with training that result in qualifications and/or statements of attainment that are recognised and accepted by industry.

*Soft skills* - stakeholder and relationship management through project communications.

*Stakeholder management* - refers to managing the project communications requirements to satisfy the needs of, support, and resolve issues with project stakeholders.

*Vocational education and training* - learners of jobs that are based in manual or practical activities, traditionally non-academic and related to a specific trade, occupation or vocation.
ABSTRACT

A research study was conducted in a key area of project management: stakeholder and relationship management through communication - ‘the soft skills’. It was conducted with Diploma of Project Management graduates from one Australian Registered Training Organisation (RTO), the Australian College of Project Management (ACPM). The study was designed to initially identify the qualifications and project management experience of the participants. Further, it identified the respondents’ understanding of and attitude to commonly held principles and literature within the project management field as it relates to the soft skills of projects. This is specifically connected to their project experience and knowledge, approach to project communications, and the stakeholder’s needs.

Some of the literature showed that through the management and application of the project soft skills by project managers may actually be a recipe for project success. Hence, an important underpinning of this study was that the project manager can enhance project success (or reduce the impact of failure) by identifying and prioritising stakeholders, developing and implementing strategies for engaging and communicating with them.

The use of a positivistic approach to this research study allowed for the evaluation and understanding of respondents to the emergent theories of successful projects being delivered through the management of stakeholders, communications, and relationships. Consequently, a quantitative approach to this study was undertaken. The participants were drawn from graduates who completed (graduated) from the ACPM with the Diploma of Project Management between January 2004 and December 2007 only. A list of graduates was collated from this period indicating that a total of 656 graduates have completed and graduated with the qualification. The data
collection for this study was done in one phase only. The questionnaire was emailed individually by the researcher directly to the selected potential respondents. Subsequently, a total of 44 responses were received, providing an overall response rate of 43%.

Two key factors emerged from the survey questionnaire. Firstly, the need for the soft skills to be incorporated in project management curriculum and education programs, and secondly, that successful projects are delivered through the management and application of the project soft skills. It is expected that the findings of this study be provided across various forums (such as vocational education and training, and project management conferences) and via project management bodies such as the Australian Institute of Project Management (AIPM) to inform learning and provide greater insight into the soft skills of project management.

It is the contention of the researcher that this quantitative study of Diploma of Project Management graduates’ views and attitudes highlights the importance of project soft skills and its importance in the delivery of successful projects as well as being part of the competencies of a successful project manager. This study also revealed the value of project experience and knowledge as it pertains to the management and application of the project soft skills.
# TABLE OF CONTENTS

List of figures and tables  x  
Statement of original authorship  xiii  
Acknowledgements  xiv  
Glossary of terms  xv  

## Chapter 1: Context of the Study

- **Introduction**  
- Purpose of the study  6  
- Research questions  7  
- Significance of the study  8  
- Limitations to the study  8  
- Thesis Structure  9  

## Chapter 2: Literature review

- **Introduction**  11  
- Defining project management  15  
- The history of project management  16  
- The traditional view of project management  18  
- The project manager  20  
- Project Management Body of Knowledge (PMBoK)  21  
  - The Project Management Institute (PMI)  21  
  - Overview and background of the PMBoK  22  
  - Communications management  25  
  - Project Stakeholders  27  
- National Competency Standards for Project Management (NCSPM)  29  
  - The Australian Institute of Project Management (AIPM)  29  
  - Overview and background of the NCSPM  29  
  - Communications management  31  
  - Project Stakeholders  32  
- Project management education  33  
- Industry literature on soft skills  39  
- Stakeholder mapping models  49  
  - Power-Influence grid  49  
  - The Stakeholder Circle™  51  
- Emotional Intelligence and project soft skills  53  
  - Overview and background  53  
  - Emotional Intelligence and projects  56  
- Summary  61
Chapter 3:  Methodology  

Introduction  
Research questions  
Research epistemology  
Positivism  
Objectivism and Realism  
Quantitative research paradigm  
Research methodology  
Research design  
Participants of the study  
Questionnaires and development  
Questionnaire pilot  
Consistency, validity and reliability considerations  
Data collection  
Invitation to participate  
Sampling  
Research ethics  
Consent  
Confidentiality and Privacy  
Data analysis  
Pre-study limitations and weaknesses  
Summary  

Chapter 4:  Data and results  

Introduction  
Response rate  
Participants background  
Years of experience  
Tertiary and higher education qualifications  
Professional project management certification  
Industry  
Role/s in projects  
Attitudinal questions  
Frequency of project communications  
The stakeholders  
Stakeholders and the communication methods  
Stakeholder information needs  
Experience and knowledge in communication planning  
Experience and knowledge in stakeholder management  
Multiple variable relationships  
Years of experience and frequency of project communications  
Years of experience and the stakeholders
Chapter 5: Discussion

Introduction

Background information

Years of project experience

Tertiary and higher education qualifications

Professional project management certification

Industry
Role in projects

Research questions

What are the general professional characteristics of the Diploma of Project Management graduates?

What are the attitudes of the graduates towards the soft skills of projects as they relate to communication and stakeholder engagement?

What, if any new information provided by the graduates can inform the curriculum content within the project management education field?

Post-study limitations and weaknesses

Summary

Chapter 6: Conclusions and Recommendations

Conclusions

Recommendations

Thesis Summary
Appendices
Appendix 1  Information sheet and questionnaire  208
Appendix 2  Letter sent to the Director of ACPM  212
Appendix 3  Letter of approval from the Director of ACPM  214
Appendix 4  Approval from QUT Ethics Committee  215

Bibliography  216
LIST OF FIGURES

Figure 1: Project management framework 12
Figure 2: Industry literature conceptual framework 14
Figure 3: Typical project management paradigm 20
Figure 4: Influence-Power Grid 49
Figure 5: The Stakeholder CircleTM 51
Figure 6: EI model for project management 56

LIST OF TABLES

Table 1: Project management knowledge areas 24
Table 2: AQF Project management qualifications 30
Table 3: Soft skills success factors 39
Table 4: Goleman’s EI Competency Framework 57
Table 5: Pre-study limitations and problems 87
Table 6: Years of project experience 92
Table 7: Statistics of years of experience 92
Table 8: Other qualifications 94
Table 9: Professional certification 94
Table 10: Industry type 95
Table 11: Project role 97
Table 12: Responses for frequency of communications 98
Table 13: Responses for the project stakeholders 99
Table 14: Responses for project stakeholders and the communication method 99
Table 15: Responses for stakeholders information needs 100
Table 16: Responses for experience and knowledge in communication planning 101
Table 17: Responses for experience and knowledge in stakeholder management 102
Table 18: Statistics for years of experience and frequency of communications 103
Table 19: Cross tabulation of years of experience and frequency of communications 104
Table 20: Statistics for years of experience and the stakeholders 105
Table 21: Cross tabulation of years of experience and the stakeholders 106
Table 22: Statistics for years of experience and communications method 107
Table 23: Cross tabulation of years of experience and communications method 108
Table 24: Statistics for years of experience and information needs 109
Table 25: Cross tabulation of years of experience and information needs 110
Table 26: Statistics for years of experience and communication planning 111
Table 27: Cross tabulation of years of experience and communication planning 112
Table 28: Statistics for year’s experience, knowledge and stakeholder management 113
Table 29: Cross tabulation for years of experience, knowledge and stakeholder management 114
Table 30: Statistics for other qualifications and frequency of communications 115
Table 31: Cross tabulation of other qualifications and frequency of communication 116
Table 32: Statistics for other qualifications and the stakeholders 117
Table 33: Cross tabulation of other qualifications and the stakeholders 117
Table 34: Statistics for other qualifications and communications method 118
Table 35: Cross tabulation of other qualifications and communications method 118
Table 36: Statistics for other qualifications and information needs 120
Table 37: Cross tabulation of other qualifications and information needs 121
Table 38: Statistics for other qualifications, experience and knowledge in communication planning 122
Table 39: Cross tabulation of other qualifications, experience and knowledge in communication planning 123
Table 40: Statistics for other qualifications, experience and knowledge in stakeholder management 124
Table 41: Cross tabulation of other qualifications, experience and knowledge in stakeholder management 125
Table 42: Statistics for professional certification and frequency of communication 126
Table 43: Cross tabulation of professional certification and frequency of communication 126
Table 44: Statistics for professional certification and the stakeholders 127
Table 45: Cross tabulation of professional certification and the stakeholders 128
Table 46: Statistics for professional certification and communications method 129
Table 47: Cross tabulation of professional certification and communications method 130
Table 48: Statistics for professional certification and information needs 131
Table 49: Cross tabulation of professional certification and information needs 132
Table 50: Statistics for professional certification, and experience and knowledge in communication planning 133
Table 51: Cross tabulation of professional certification, and experience and knowledge in communication planning 134
Table 52: Statistics for professional certification, and experience and knowledge in stakeholder management 135
Table 53: Cross tabulation of professional certification, and experience and knowledge in stakeholder management 136
Table 54: Statistics for industry and frequency of communication 138
Table 55: Cross tabulation of industry and frequency of communication 139
Table 56: Statistics for industry and the stakeholders 141
Table 57: Cross tabulation of industry and the stakeholders 142
Table 58: Statistics for industry and communications method 144
Table 59: Cross tabulation of industry and communications method 147
Table 60: Statistics for industry and information needs 147
Table 61: Cross tabulation of industry and information needs 148
Table 62: Statistics for industry, and experience and knowledge in communication planning 149
Table 63: Cross tabulation of industry, and experience and knowledge in communication planning 150
Table 64: Statistics for industry, and experience and knowledge in stakeholder management 152
Table 65: Cross tabulation of industry, and experience and knowledge in stakeholder management 153
Table 66: Statistics for project role and frequency of communication 155
Table 67: Cross tabulation of project role and frequency of communication 156
Table 68: Statistics for project role and the stakeholders 157
Table 69: Cross tabulation of project role and stakeholders 159
Table 70: Statistics for project role and communications method 159
Table 71: Cross tabulation of project role and communications method 160
Table 72: Statistics for project role and information needs 161
Table 73: Cross tabulation of project role and information needs 162
Table 74: Statistics for project role, and experience and knowledge in communication planning 163
Table 75: Cross tabulation of project role, and experience and knowledge in communication planning 163
Table 76: Statistics for project role, and experience and knowledge in stakeholder management 165
Table 77: Cross tabulation of project role, and experience and knowledge in stakeholder management 166
STATEMENT OF ORIGINAL AUTHORSHIP

The work contained in this thesis has not been previously submitted to meet the requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: .................................................................

Date: .................................................................
ACKNOWLEDGEMENTS

The author wishes to extend his gratitude to Dr Tricia Fox for her support on an academic level, and for her regular and ongoing assistance. Dr Fox’s guidance, direction, and constructive written and oral feedback have contributed extensively to the current status of this thesis.

The author also wishes to acknowledge the assistance and feedback offered by Dr Catherine Weir and acknowledges the assistance of Stephen Darwin for his support and professional assistance in pursuing this research study.

Acknowledgement and thanks is also extended to the Diploma of Project Management graduates who gave their time to complete the questionnaire which enabled this research study to be undertaken.

Finally, acknowledgement and thanks to the then Director of Education Services of the Australian College of Project Management (ACPM), Nicolas West, for permission to access the student database and to use his institution for this study.
## GLOSSARY OF TERMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACPM</td>
<td>Australian College of Project Management</td>
</tr>
<tr>
<td>AIPM</td>
<td>Australian Institute of Project Management</td>
</tr>
<tr>
<td>ANTA</td>
<td>Australian National Training Authority</td>
</tr>
<tr>
<td>CSF</td>
<td>Critical Success Factors</td>
</tr>
<tr>
<td>DEEWR</td>
<td>Department of Education, Employment, and Workplace Relations</td>
</tr>
<tr>
<td>DEST</td>
<td>Department of Education Science and Training</td>
</tr>
<tr>
<td>EI</td>
<td>Emotional Intelligence</td>
</tr>
<tr>
<td>EQ</td>
<td>Emotional Quotient</td>
</tr>
<tr>
<td>HOC</td>
<td>Human and Organisational Competencies</td>
</tr>
<tr>
<td>MOC</td>
<td>Methodical and Operational Competencies</td>
</tr>
<tr>
<td>NCSPM</td>
<td>National Competency Standards for Project Management</td>
</tr>
<tr>
<td>PMBoK</td>
<td>Project Management Body of Knowledge</td>
</tr>
<tr>
<td>PMI</td>
<td>Project Management Institute</td>
</tr>
<tr>
<td>PMP</td>
<td>Project Management Professional</td>
</tr>
<tr>
<td>RTO</td>
<td>Registered Training Organisation</td>
</tr>
<tr>
<td>TAFE</td>
<td>Technical and Further Education</td>
</tr>
<tr>
<td>VET</td>
<td>Vocational Education and Training</td>
</tr>
</tbody>
</table>
Chapter 1

Context of the Study

Introduction

This study is located in a key area of project management: stakeholder, relationship, and communication management - ‘the soft skills’. Project management is the discipline of planning, organising, and managing resources to bring about the successful completion of specific project goals and outcomes (Azzopardi, 2007). Consequently, project management demands significant engagement with stakeholders and requires various forms of communication with them as a means to advise on the project’s progress, problems, delays or personnel matters. Critical to this communication is the need for project managers to have a substantial appreciation of the needs of project stakeholders.

Stakeholder analysis in projects is a process that aims to identify those stakeholders who have influence on, or are impacted by the results of a project, and whether they support or oppose the project (Verzuh, 2005). Furthermore, it is important to identify all project stakeholders for the purpose of identifying their success criteria and turning these into quality goals (Verzuh, 2005). A stakeholder analysis is generally performed when there is a need to clarify the consequences of envisaged changes, or at the start of new projects and in connection with organisational changes generally (Bourne, 2003). After undertaking a stakeholder analysis, it can be argued that effective project management communication should be established based on Verzuh’s (2005) advice where states that “communication ranks as the highest of the project factors which leads to a successful project” (p.272).
Project communication is the lifeblood of projects and organisations, and the project manager has a critical role in managing the communications (Drinkwater, 2007). Challenges associated with managing project communications according to Drinkwater (2007) is managing the communications process continuously in order to circulate project information from the external and internal stakeholders via project documentation which continues throughout the life of the project. Drinkwater (2007) argues that without a continuous communications process stakeholders and the project team can be left wondering where things stand, and what decisions have been made. Appreciating the vital role project communications have in respect of stakeholders and project team members being aware of what is happening within the project, the literature regarding project management communications is limited (Bourne, 2006). This may be due in part to the current and historical paradigm of project success in the project management industry being singularly based on the notions of on time and on budget (Wideman, 2002). This research, therefore, moves beyond the fiscal, efficiency elements (time and budget) for project success and argues that the soft skills of project management that is; stakeholder and relationship management through project communications can also play a major role in project success.

In view of the deficiency in research and literature about details associated with project management communications (Bourne, 2006); the focus of this study was identified as being a need to research the perceptions and attitudes of graduates of a Diploma of Project Management program towards project communications and the soft skills of project management. The value of this focus for the research would allow for increased knowledge and understanding for both project management students and practitioners in the area of stakeholder management and project
communications which are concerned with the soft skills of project management. An additional impetus for this research is related to the researcher’s current role as a project management teacher, and his interests in exploring the question of what drives a successful project. Furthermore, perceptions and attitudes from graduates of the Diploma of Project Management program could help establish arguments that the ‘on time’ and ‘on budget’ focus of project management may be in the process of change.

It has been argued that one of the key requirements within projects is to keep all stakeholders informed of those aspects of the project important to them (Dinsmore, 2006). Consequently, it is vital for the project manager to convey the information and documents to the appropriate stakeholders at the right time in accordance with an agreed strategy. Australian and international project management researchers (Bourne, 2003 and 2005; Dinsmore, 2006; Hartley, 2003; Schwalbe, 2002; and Verzuh, 2005) highlight the importance of stakeholders and relationship management as part of the soft skill set of the project manager.

Many project management researchers (see Hartley, 2003; Schwalbe, 2002; and Verzuh, 2005) have reported on project communication in projects being based on four key areas:

- The audience (stakeholders);
- The media (method) used;
- The originator (or owner); and
- The frequency.

In this context, the range of stakeholders and their needs will vary in the project lifecycle. In the literature a number of researchers (such as Bourne, 2009, 2006, and 2003; Fletcher, Guthrie, Steane, Roos, & Pike, 2003; Kleim and Ludin, 1997; Loo, 2002; Pant and Baroudi, 2006; Turner, Kristoffer, & Thurloway, 2002;
Wideman, 2002) write that identifying the project stakeholders, understanding their expectations, and the influence will ultimately lead to a successful project. Hence, knowing the stakeholders, their interests and needs is critical to the success of the project (Baker, 2005). Moreover, distribution of project information is critical to ensure all information is communicated in a timely fashion to all stakeholders throughout the life of the project (Hartley, 2003). These recommendations complement the intent of this study which is arguing that project success should not be driven solely by the standard hard factors (time, scope, budget and quality) but that the soft skills in stakeholder relationships and communication management can significantly contribute to a successful project.

Many project management researchers have focused on the ‘hard’ factors of project management whilst ignoring the soft skills (Dinsmore, 1999; Hartley, 2003; Turner, 1999 and Schwalbe, 2002). In addition, Bourne (2005) argues that the focus of research for improving project management practice has been directed at enhancing the ‘hard’ skills Furthermore, the development of tools, techniques and frameworks to develop the essential soft skills such as stakeholder and relationship management has been largely ignored in the literature and indeed in the project management industry for some time.

The soft skills of project management according to Bourne (2005) are required to facilitate the application of the hard skills because it is people who realise the objectives of the project, not the techniques or hardware. Moreover, Soderlund (2002) notes that project management research have traditionally focused on the project rather than the project management functions and in particular, the soft skills of the project manager. Yet, effective communication through a well developed communication approach and strategy is vital in the process of building and
maintaining relationships and is essential for maintaining the support and commitment of all key project stakeholders (Bourne, 2006).

One reason for the dominance of the hard skills of project management (fiscal and efficiency) may be associated with what Wysocki and Lewis (2001) noted as project managers who are often selected from the ranks of the technically competent. Wysocki and Lewis (2001) argue that there is a range of other skills and knowledge sets that are required in project management that include: technical, management, and interpersonal skills. Specific project management skills have been reported by various researchers in the field and include:

1. General Management skills - which typically include delegation; leadership; managing change; meeting management; performance management; staffing; performance evaluations; process design, developing procedures and policies, planning, organising and controlling, strategy and organisational know-how (Wysocki and Lewis, 2001).

2. Interpersonal skills - which include communication, conflict management, team building, negotiation, influencing, motivation, relationship management, and problem solving (Pinto and Kharbanda, 1995; Wysocki and Lewis, 2001). Furthermore, these interpersonal skills have been identified as the most important of all the skills a project manager can possess (Briner, Geddes, & Hastings, 1996; Wysocki and Lewis, 2001). Moreover, Pinto and Kharbanda (1995), stress that project management is a challenge in people and relationship management. The project manager has little or no positional authority, which results in interpersonal skills becoming critical to project management success (Wysocki and Lewis, 2001).
3. Project management skills - It is important for a project manager to know how to run a project and use specific project management tools and techniques (Toney and Powers, 1997).

The Project Management Institute (PMI), the authors of the Project Management Body of Knowledge (PMBOK, 2004) identify nine knowledge areas and skills for project management in the project processes of managing integration, scope, risk, quality, communication, time, cost, procurement, and human resources.

Based on these details this study argues that the project manager can enhance project success (or reduce the impact of failure) by identifying and prioritising stakeholders, developing and implementing strategies for engaging and communicating with them through managing the project soft skills.

**Purpose of the study**

Project management is the discipline of planning, organising, and managing resources to bring about the successful completion of specific project goals and outcomes (Hartley, 2003; Schwalbe, 2002; Verzuh, 2005). It has been noted that project management demands significant engagement with stakeholders and various forms of communication as a means to provide advice and information about the project’s progress, problems, delays or personnel matters. These elements are generally referred to as the ‘soft skills’ of project management. Yet, Pant and Baroudi (2006) noted that the coverage and research of soft skills has been piecemeal and inadequate. A project would seem to be a success if all the work goes as planned. A dominant perspective has been that only the hard skills of project management, that is, project work completed as scheduled and resources are used efficiently (Schwalbe, 2002), as the only viable process for project management. However, Bourne (2006) has argued that project success means handling and managing the ‘hard’ factors of a
project (on time, on budget, to a scope and specifications) with the soft skills (managing people, through communication and relationships) against the competing interests and requirements of all stakeholders. Stakeholders comprise individuals and/or groups which have a vested interest in the outcome of the project.

Given that there is little research about the soft skills in project management, in addition to continued debate regarding the objectives and intent of hard skills as opposed to the soft skills of project management, the purpose of this study was to investigate the perceptions and attitudes of graduates of a Diploma of Project Management program towards the soft skills of project management. Specifically, the research determines the graduates attitudes and perceptions regarding project communication and stakeholder management: the soft skills, in respect to the soft skills contributing to the successful outcome of projects.

**Research questions**

The study employed an analysis of a questionnaire which was electronically administered to 103 graduates of the ACPM to gain general descriptive information about the respondents associated with the qualifications and professional experience in project management. It also investigates their perceptions regarding the soft skills of project management: stakeholder and communication management. Based on this strategy the research questions for this thesis were:

- What are the general professional characteristics of Project Management Diploma graduates in respect of their professional experience in project management, their educational qualification(s) and the type of industry(s) they have or are currently employed in a project role?
- What are the attitudes of the graduates towards the soft skills of projects as they relate to communication and stakeholder engagement
What, if any, new information provided by the graduates can inform the curriculum content within the project management education field?

**Significance of the study**

Whilst there have been a number of papers, articles, and some project management literature reviews focusing on the soft skills of project management (Baccarini and Durrell, 2006; Beard, 2005; Bourne, 2003; Carbone and Gholston, 2004; Gillard, 2009; Kleim and Ludin, 1997; Loo, 2002; Motschnig-Pitrik, 2006b; Pant and Baroudi, 2006; Turner and Muller, 2005), a study about Project Management Diploma graduates’ attitudes to soft skills in respect of communication and stakeholder engagement has not been undertaken.

However, it has been suggested that screening for, and developing non-technical soft skills in project managers and other project staff is critical for project success (Muzio, Fisher, Thomas, & Peters, 2007). This research can assist project management students and, practitioners, to gain more understanding about project management soft skills. Furthermore, key findings of the study from will be provided to various forums (VET and project management conferences) and project management bodies such as PMI and Australian Institute of Project Management (AIPM) to further inform project management practitioners. This study is not attempting to pose definitive answers to project management learning and development, but to raise findings for distribution and sharing across the project management industry and VET sector.

**Limitations to the study**

The outcomes and findings of this study are limited in relation to the cohort of graduates of the Diploma of Project Management program which were obtained from one (1) of the 143 Registered Training Organisations (RTO) in Australia who offer
the Diploma of Project Management (National Training Information Service, 2008). The RTO that was selected was the Australian College of Project management (ACPM). Consequently, the respondents would be drawing on their learning in completing the Diploma of Project Management program with the ACPM between January 2004 and December 2007 only. A list of 656 graduates was collated from this period from which a number of respondents were identified and invited to participate in this study.

The small sample size is one of the key limitations to this study. 103 graduates were identified to participate in this study, with only 44 responding. The pre-study and post-study limitations and weaknesses of this study will be further discussed in chapters 3 and 5 respectively.

However, given that project management is situated in various professions and activities, it can be argued that the inferences gleaned from the study will be valuable within the wider project management field.

**Thesis Structure**

The thesis began by providing a background to the project management soft skills: stakeholder and communications management. The justification for this study was highlighted and general information about the participants and limitations of the study were presented. Chapter 2 is the review of literature and presents details about what is project management, its history and development as a specific discipline of study. Details about of the extensive areas of project management competencies are highlighted. Specific information about project management soft and hard skills is outlined with a discussion about current project management industry practices. Models of stakeholder management are highlighted; also finally the review links this earlier discussion to emotional intelligence (EI).
Chapter three highlights the research methodology adopted for this study that used a questionnaire that was electronically submitted to graduates of the Diploma Project Management from one RTO in Australia. Findings from the survey are provided in Chapters 4 and 5. The final chapter of the thesis, Chapter 6, outlines conclusions and recommendations gleaned from the data and proves a summary of the implications from the outcomes identified in the research.
Chapter 2

Literature review

Introduction

The purpose of this study was to investigate the understanding and awareness of Diploma of Project Management graduates regarding the soft skills of project management as to whether there is a link that exists between project communication and stakeholder management, that is, the soft skills, in the successful outcome of projects. This chapter is divided in two major sections: the first deals with the background, history, and nature of project management, whilst the second section of this chapter deals with the past and current views of the project soft skills, and discussions of stakeholder management models, and finally considers the link between emotional intelligence (EI) and the soft skills of project management. Given the nature and context of project management, the literature review provides grounding in the background, history and broad concepts of project management, and then provides a discussion about project management as a discipline of study.

The main purpose of this literature review is to focus on research, and literature that have contributed to the broad profession of project management, but and also link to the soft skills of project management. The review outlines the background of the development of the project management knowledge and competencies in Australia. A broad conceptual framework in the first section of the literature review identifies and shows the relationship between the concepts and literature in the broader project management field is shown below in figure 1.
The review of the literature then concludes with some relevant details from local and international researchers in the wider project management field. These sections set out and provide a background and overview of the accepted industry wide project management knowledge base as it pertains to the two elements considered in this study: stakeholder and communication management. The literature then reviews two models that have been developed to assist the project manager in stakeholder identification, mapping, and analysis. Finally, this chapter concludes with a discussion on the relevance of the emerging role of emotional intelligence (EI), and its link to relationship management in projects, and the soft skills. The aim of this chapter is to
provide a grounding in the project management field as it relates to the soft skills as shown in figure 1 (see above) and figure 2 below.

In researching the topic there are a number of existing bodies of literature that provide some insight into the concept of the project management field and the soft skills. Whilst a wide variety of literature was scanned in relation to the topic as it pertained to the broader stakeholder management area, the key fields requiring further exploration are shown below in figure 2 as a high level conceptual framework that will be discussed in the following sections. In terms of researching the concepts of the soft skills, of particular interest is how the factors of EI impacts on the role of the project manager.

Predominantly, the project soft skills are centred on the need to manage the project stakeholders and the communication process. In addition, bodies of literature such as stakeholder management, communication management, EI and the project manager, and stakeholder models have provided different perspectives on the soft skills; what it is, how they can be managed, how they affect project success, and what factors may influence the project manager’s role in their management.

The graphic representation (shown below in figure 2) identifies the key areas to be discussed in the final sections of this chapter relating to the industry literature review on the soft skills of project management, the application and use of stakeholder models, and finally the role that EI plays on the project manager’s role.
It has been argued that there has been a deficiency of literature regarding project stakeholders and communications: the management of the soft skills as the key to project success (Bourne, 2006). This is further supported by Wideman (2002), and allows the researcher to contend that the current and historical paradigm of project success in the project management industry for so long has been based on what Wideman (2002) says is “on time and on budget” (p.2).

The purpose of the material reviewed in this chapter provides a conceptual framework that was developed to not only guide the research, but also to provide some background, context, and a broader view of the key areas associated with the soft skills of project management.
Defining project management

According to the Project Management Institute (PMI, 2004) “project management is the discipline of planning, organising, and managing resources to bring about the successful completion of specific project goals and objectives” (p. 4). Further, PMI (2004) also state that project management is the application of skills, tools, techniques to meet the project requirements. It typically involves managing not only time, cost, and scope, but also identifying the project stakeholders and their requirements. Ireland (2006) however offers another view, and suggests that “the challenge project management is to achieve all the goals and objectives whilst also delivering the project on time and on budget” (p.110). Shenhar and Dvir (2007b) however are quite prescriptive in their definition of project management, and state that “project management is the managerial activities needed to lead a project to a successful end” (p.94). The traditional view and paradigm offered by the likes of Ireland (2006), PMI (2004), and Shenhar and Dvir (2007) and many other researchers in the field of project management, will be explored later in this review of project management literature. However, Phillips (2003) notes that project management has within it a secondary “and more ambitious” (p.354) challenge; which is to maintain and integrate the needs of all project stakeholders. This alludes to the important fact of the necessary management of the project soft skills by the project manager. Schwalbe (2002) offers a differing view of project management from such researchers as Azzopardi (2007), Baker (2005), Bista (2007), Dinsmore and Cabanis-Brewin (2006), Hartley (2003), Ireland (2006), Maylor (1999), Shenhar and Dvir (2007b), and Verzuh (2005), positing that project management has within it three broad areas: the stakeholders, the nine knowledge areas (expanded on later in the chapter), and the project deliverables. In managing these three areas effectively, Schwalbe (2002)
suggests that this should deliver a successful project. Furthermore, Verzuh (2005) further posits that a project “can be boiled down to three key success factors” (p.7):

- Agreement amongst all stakeholders;
- Effective communication between all stakeholders; and
- Management support. (p.8)

The history of project management

It could be argued that project management has been practised since early civilisation. Shenhar and Dvir (2007b) note that “since the beginning of civilisation, people have been involved in projects” (p.93). For example, some of the most famous project of all time, include: the Great Wall of China, the Manhattan Project (which led to the development of the atomic bomb), the Apollo Project, and the Sydney Opera House to name a few.

Until 1900 projects were generally managed by creative architects and engineers, among these included: Christopher Wren, Thomas Telford (1757-1834) and Isambard Kingdom Brunel (1806–1859). It has been since the 1950s that organisations started applying systemic project management tools and techniques to complex projects (Baker, 2005; Hartley, 2003; Maylor, 1999; and Schwalbe, 2002).

However, as an academic discipline, project management developed from different fields of application, but predominantly construction, engineering and defence. It is recognised that the two forefathers of project management are Henry Gantt, called the father of planning and control techniques (Lewis, 2003), and is famously known for his use of the Gantt chart as a project management tool. Also, Henri Fayol for his creation of the five management functions, which form the basis for the body of knowledge associated with project and program management (Schwalbe, 2002).
The 1950s marked the beginning of the modern Project Management era. Project management was formally recognized as a distinct discipline arising from the management discipline (Azzopardi, 2007; Baker, 2005; Hartley, 2003, Maylor, 1999). Furthermore, Verzuh (2005) adds that much of modern project management was defined and developed in the 1950s in the cold war defence and later through the space missions.

Furthermore, Schwalbe (2002), and Shenhar and Dvir (2007b) categorise the late 1960 and 1970s as being the era of space projects (the Apollo project) and the many other defence, military, and construction projects.

In 1969, the Project Management Institute (PMI) was formed to serve the interests of the project management industry (PMI, 2004). In 1981, the PMI Board of Directors authorised the development of what has become A Guide to the Project Management Body of Knowledge (the PMBoK), containing the standards and guidelines of practice that are widely used throughout the profession.

The 1980s and 1990s are characterised by the revolutionary development in the information management sector with the introduction of the personal computer (PC) and associated computer communications networking facilities (Azzopardi, 2007). This development resulted in having low cost multitasking PCs that had high efficiency in managing and controlling complex project schedules. During this period low cost project management software for computers became widely available that made project management techniques more easily accessible (Azzopardi, 2007).

Currently with rapid technological advancement, thriving IT industries, and globalisation, project management solutions are in demand across the world as a fundamental force to complete projects within not only a defined scope, time, and cost
constraints, but also the recognition that project stakeholders play an important part in successful project (Bista, 2007). Azzopardi (2007) contends that:

At present ultra modern project management systems deliver innovative solutions and its management possesses through the latest tools and techniques, systems and schemes with scientific evidences and statistical explanations, and the recognition of the need to meet the stakeholder’s expectations. (p.3)

Schwalbe (2002) further adds that in the early 2000s “people in virtually every industry began to apply different aspects of project management to their projects” (p.13).

**The traditional view of project management**

Baker (2005) states that the traditional project management paradigm for a successful project are managed and delivered under the guise of “on time, on budget, and to a specified scope and specifications” (p.5). These elements are also referred to as the project management triangle, where each side represents a constraint. One side of the triangle cannot be changed without affecting the others. Similarly, Verzuh (2005) posits that project success is defined as “on time, on budget, to high quality with respect to functionality and performance” (p. 18). Furthermore, Verzuh (2005) goes on to state that these are the key components that the project manager must manage to ensure a successful project. Hartley (2003) writes that “time, cost, specifications and resources are the project constraints and form the criteria for the completion of a successful project” (p. 9). Dinsmore (1999) further posits and reinforces this view, noting that “traditionally project management literature targeted how to deal with the specifics of the project such as time, cost and specifications” (p.12). Finally, Shenhar and Dvir (2007b) state that the typical traditional paradigm or
“project management lense” (p.96), looks at the project as a sequence of activities that must be completed according to a plan to achieve a specified and documented outcome.

The aforementioned writers and researchers agree that typical paradigm which focused on time, cost, scope and specifications (or quality). Time refers to the amount of time available to complete a project. Cost refers to the budgeted amount available for completing the project. Project quality typically refers to the standards or specifications that the project deliverables must meet. Whilst finally, scope refers to what must be done to produce the project's end result. Verzuh (2005) notes that these four parameters are often competing priorities: increased scope typically means increased time and increased cost, changes to quality could mean increased costs and reduced scope, and a tight budget could mean increased time and reduced scope.

Wideman (2002) offers an opposing view on this traditional paradigm of project management and indicates that “successful project management is characterised as being on time and within-budget, but unfortunately, simply being on time and within budget does not necessarily mean that project has also been successful” (p.1). Wideman (2002) view is linked to what he reports “the success or failure of a project is almost entirely dependent upon the people and the management of the soft components” (p.2). Figure 3 below shows the typical project management paradigm as a model described by many project management writers.
The project manager

Turner (1999) states that “a project manager is a professional in the field of project management” (p. 6). He goes on to state that the project manager typically has the responsibility for planning, executing, and closing of the project. In contrast, Verzuh (2005) notes that the project manager is a leader, and that the role of the project manager “is not only that of managing the project management tool set, but also leading and managing all the project stakeholders” (p.29).

Typically, projects and indeed project managers are found in the construction, engineering, computer, telecommunications, and defence sectors. However, Azzopardi (2007) states that from the later 1990s into the 2000s:

Projects and the role of the project manager have developed in more non-traditional sectors such as law firms, education, audit firms, production, design and service, and retail industries. (p.4)
Dinsmore and Cabanis-Brewin (2006) support this view where they note that modern project management is now broadly applied in the more non-traditional areas such as marketing, human resource management, and organisational change.

Many writers and researchers in the area of project management researched for this study (Azzopardi, 2007; Baker, 2005; Bista, 2007; Dinsmore and Cabanis-Brewin, 2006; Hartley, 2003; Ireland, 2006; Maylor, 1999; Schwalbe, 2002; Turner, 1999; Verzuh, 2005) identify the key responsibilities of the project manager as being:

- creating clear and attainable project objectives;
- building the project requirements; and
- managing the four main components of a project: cost, time, quality, and scope.

Additionally, Verzuh (2005) suggests that “the project manager requires skills within three broad areas: project management, business management, and technical” (p.17). He further suggests that the project manager is the catalyst and driver who lifts the project, puts it into motion, and brings it to a successful conclusion on time and on budget, but also being aware of all the project stakeholders and what does success mean. (p.30)

The preceding discussion of the typical view and history project management provides an overview of the project management field.

**Project Management Body of Knowledge (PMBoK)**

*The Project Management Institute (PMI)*

The PMI was founded in 1969 based “on the premise that there were many management practices that were common to projects in application areas as diverse as construction and engineering” (p.309). In 1976, PMI held a symposium with the
intention that such common project management practices and principles might be
documented into a consolidated way that could eventually become recognised a
project management standards worldwide and they hoped that “project management
be considered a profession” (p.309). In 1981, the PMI board approved and endorsed a
project for the development of a set of principles and concepts which PMI (2004)
state their main focus as being:

- Recognition of professional education and certification;
- The content and structure of a body of knowledge; and
- The characteristics of a practising profession. (p.310)

Subsequently, in 1987 the first edition of the PMBoK was released.

**Overview and background of PMBoK**

The PMBoK (2004) is the sum of knowledge within the profession of project
management. As with other professions, the body of knowledge rests with the
practitioners and educators who apply and advance it. The complete PMBoK (2004)
includes proven traditional practices that are widely applied, as well as innovative
practices that are emerging in the profession, including published and unpublished
material (PMI, 2004).

The PMBoK is currently in its third edition issued in 2004, which was revised
from its previous edition issued in 2000. The main changes from the previous two
editions were in the descriptions of the nine project management areas (PMI, 2004).
Previously the nine areas were called ‘functions’ now they are called *knowledge areas*
(PMI, 2004). According to PMI (2004) reference to knowledge areas was based on
the perception that this gave a better understanding and description of the aspects and
requirements to manage the processes within each of the nine areas.
The primary purpose of the PMBoK (2004) is to identify that subset of the body of knowledge that is generally recognised as good practice. According to PMI (2004) this means that the knowledge and practices described are applicable to most projects, and that there is a wide consensus about their value, usefulness and practical application in the industry. PMI (2004) describes good project management practice as a general agreement that the correct application of skills, tools, and techniques (as set out in the PMBoK, 2004) can enhance the chances of project success of a wide range of different industries and project types. PMI (2004) further point out that good practice does not mean that the knowledge described should always be applied uniformly, but in fact, the project manager, with the stakeholders are responsible for determining what is appropriate for the any given project. Hence, it is the PMBoK (2004) that provides and promotes the common language and terminology for writing, describing, and applying project management. PMI (2004) contend that this is an essential element for any profession, as is the case for project management. Further, PMI (2004) also note that access to the PMBoK (2004) is relevant to anyone interested in the profession of project management, and suggest that this could include, but is not limited to:

- Educators teaching in project management and related subjects;
- Senior managers, customers and other stakeholders;
- Project and program managers;
- Members of project teams;
- Functional managers with employees assigned to project teams;
- Consultants and other specialists in the project management field; and
- Researchers analysing elements of project management. (p.26)
The PMBoK (2004) identifies 44 project management processes, which it organises into the nine project management knowledge areas as described below in Table 1.

**Table 1: Project Management Knowledge areas**

<table>
<thead>
<tr>
<th>Project Management Knowledge Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration Management</td>
<td>Describes the processes and activities that integrate various elements of project management over the project lifecycle.</td>
</tr>
<tr>
<td>Scope Management</td>
<td>Describes the processes involved in ascertaining that the project includes all the work required, and only the work required to complete the project successfully.</td>
</tr>
<tr>
<td>Time Management</td>
<td>Describes the planning and scheduling processes to achieve the timely completion of the project.</td>
</tr>
<tr>
<td>Cost Management</td>
<td>Describes the processes involved in planning, estimating, budgeting, and controlling costs so that the project is completed within the approved budget.</td>
</tr>
<tr>
<td>Quality Management</td>
<td>Describes the processes involved in assuring that the project will satisfy the objectives for which it was undertaken.</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>Describes the processes that organise and manage the project people (including stakeholders) and teams.</td>
</tr>
<tr>
<td>Communications Management</td>
<td>Describes the processes concerning the timely and appropriate generation, collection, dissemination, storage and ultimate disposition of project information linked to stakeholders.</td>
</tr>
<tr>
<td>Risk Management</td>
<td>Describes the processes concerned with managing project risks and issues.</td>
</tr>
<tr>
<td>Procurement Management</td>
<td>Describes the processes that purchase or acquire products, services or results, as well as contract management processes.</td>
</tr>
</tbody>
</table>

PMI (2004) identify five key skills a project manager should exhibit these include:

- Effective communication and exchange of information with all project stakeholders;
• Influencing stakeholders;
• Showing leadership;
• Motivating all stakeholders related to the project; and
• Negotiation and conflict management, and conferring with others (namely stakeholders) to gain and reach agreement. (p.15)

Communications management

PMI (2004) note that the analysis of project communications requirements is generally the output of, and results in, the sum of information needs of the project stakeholders. These requirements they suggest, are defined by combining the type and format of information the stakeholders need with an analysis of the value of that information. PMI (2004) suggest that the intent of this requirement on the project manager is to ensure the stakeholders are provided with key targeted project information requirements when they need it, rather than being swamped with the overwhelming information that sits in and around the entire project. Hence, the project manager should consider the potential communication channels, paths, and methods required by the individual stakeholder groups or individuals. PMI (2004) further suggest that a typical set of tools and techniques to determine project communications requirements include:

• Project organisations charts;
• Stakeholder relationships;
• Specialities involved in the project;
• Stakeholder information; and
• Information needs of the stakeholder. (p.235)

The PMBoK (2004) describes the use of a communications plan to consider and document the communications and information needs for a project whilst also
considering the stakeholders’ needs. Furthermore, the PMI (2004) notes that a communications plan provides for a typical set of tools and techniques to determine project communications requirements. They suggest it should include:

- Stakeholder communication requirements;
- The person responsible for communicating the information;
- Information to be communicated to all the stakeholders;
- Person or persons who will receive the information;
- Method/s used to convey the information; and
- Frequency of the communication. (p.227)

Additionally, PMI (2004) notes that with the advent of more accessible and fast technology, it can be very useful in aiding the transfer and distribution of information amongst the project stakeholders. However, the PMI (2004) notes that the project manager needs to consider a number of factors that impinge upon and dictate the communications technology that could be used in a project. These include:

- The urgency of the need of the information;
- The availability of the technology;
- Experience and expertise of the project stakeholders;
- The length of the project; and
- The project environment (i.e. does the team operate in a face-to-face or a virtual environment?). (p.229)

As is evidenced in the preceding details about the PMBoK (2004), it shows that it is theoretically based, rather than offering a real application of the theory. Gale and Brown (2004) argue that elements of the PMBoK (2004) do actually link to educational competencies and outcomes for learners in the project management field. This is further supported by Mersino (2006) who contends that the project manager is
typically the centre of all project communications and, that having great information is going to be a function of the relationships and stakeholder management.

Project Stakeholders

PMI (2004) describes a project stakeholder as:

Individuals and organisations that are actively involved in the project, or whose interests may be affected as a result of project execution and completion. (p.24)

It goes on to state that they exert influence on the project’s objectives and its outcomes. Hence, as was evident in the preceding discourse on project communications, the project manager must identify the stakeholders, determine their requirements and expectations, and manage their influence in relation to the requirements and their responsibilities to ensure a successful project.

PMI (2004) argue that stakeholders have varying levels of responsibility and authority when participating in a project and these can, and generally do vary, over the course of the project lifecycle. Their responsibilities can range from occasional contribution to full project sponsorship which would also include financial and political support. Hence, the project needs to ensure that all stakeholders are identified and no stakeholder is ignored as they may damage the project outcomes.

The PMBoK (2004) suggests that stakeholder identification can be difficult at times, and notes that the focus of the project manager is to identify all stakeholders, but more importantly to then determine who the key stakeholders are. As PMI (2004) defines a project stakeholder as “exerting influence on the project’s objectives and outcomes” (p.24), it can then be deduced that they could have either a positive or a negative influence on a project. PMI (2004) state that positive stakeholders are those who would benefit from a successful project outcome, while negative stakeholders are
those who see negative and/or disruptive outcomes from the project. PMI (2004) clearly argue that negative stakeholder’s interests would be better served if the project fails, and that sometimes the project manager may actually be overlooked to the potential detriment of the project’s success.

The PMBoK (2004) identifies a set of project stakeholders for all projects would typically include:

- Positive and negative influencers;
- The project manager;
- Customer/user;
- The delivery organisation performing the project management functions;
- Project team members; and
- Sponsor. (p.25)

Additionally, PMI (2004) notes that the project manager must manage the stakeholder’s expectations due to their varying requirements and conflicting objectives. PMI (2004) links the knowledge area of communications management to project stakeholders, by arguing that stakeholder management refers to managing the communications requirements to satisfy the needs of, support, and resolve issues with project stakeholders. PMI (2004) state that actively managing stakeholders increases the likelihood that the project will not veer off track, but actually achieve its stated objectives and outcomes. The project manager, it suggests, is responsible for stakeholder and relationship management throughout the project lifecycle by ensuring all stakeholders operate synergistically with limited disruptions. Finally, the PMBoK formed the basis of the development in Australia of the National Competency Standards for Project Management (NCSPM) which will be discussed in the next section.
National Competency Standards for Project Management (NCSPM)

The Australian Institute of Project Management (AIPM)

The Australian Institute of Project Management (AIPM) is considered the peak body for project management in Australia. The AIPM was originally formed in 1976 as the Project Managers' Forum and then later renamed as the AIPM. The AIPM’s role, as espoused by Beard (2005) is “to improve the knowledge, skills and competence of project team members, project managers and project directors, all of whom play a key role in the achievement of business objectives, not just project objectives” (p.1). Furthermore Beard (2005) notes that the AIPM also plays a large part in promoting and developing project management competencies in Australia, whilst also playing a part in project management education.

Overview and background of the NCSPM

In the early 1990s in consultation with the project management industry and under the auspices of the Australian National Training Authority (ANTA), the Australian Institute of Project Management (AIPM) developed a set of competency standards for the Australian Qualification Framework (AQF) levels 4, 5 and 6. These levels equate to the following qualifications as described below in Table 2. It should be noted that in July 2005, ANTA was disbanded and the Department of Education, Science and Training (DEST) took over the responsibilities of ANTA. These responsibilities now reside within the Department of Employment, Education and Workplace Relations (DEEWR).
Table 2: AQF Project Management qualifications

<table>
<thead>
<tr>
<th>AQF Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Certificate IV – aimed at people who assist or contribute to projects. Typically in roles as project support.</td>
</tr>
<tr>
<td>5</td>
<td>Diploma – aimed at people who operate or intend to work as Project Managers</td>
</tr>
<tr>
<td>6</td>
<td>Advanced Diploma – aimed at people who manage multiple project managers or manage mega-projects.</td>
</tr>
</tbody>
</table>

The AIPM adopted the PMBoK (1987) as the initial knowledge-base for the NCSPM. Subsequently, the National Competency Standards for Project Management (NCSPM) is structured around the nine knowledge areas as described in the PMBoK (2004): Integration management, Scope management, Time management, Cost management, Quality management, Human resources management, Communications management, Risk management, and Procurement management.

These standards were approved as the National Competency Standards for Project Management in 1996 which, were then reviewed in 2003 and a revised set of the NCSPM were issued in 2004. Since then the broader project management body of knowledge and industry expectations of project management has increased substantially. As a result, the project management industry, through its peak body in Australia, the AIPM, and through a Competency Consultation paper has since expressed a “need to upgrade the 2004 AQF Levels 4, 5 and 6 standards to meet the current and contemporary industry needs” (p.1). The suggested changes included:

- The need to develop competency standards for project managers working at senior management levels;
- Give greater prominence to personal attributes and behaviours (the soft skills) which need to be exhibited by project managers, particularly at the higher levels; and
A need to move towards developing a true project management profession in Australia and the hence the NCSPM needed to reflect professional expectations. (p.2)

Finally, in December 2007, the second version of the NCSPM was released incorporating some of the above changes as espoused by the Australian project management industry and the AIPM.

The following sections describe the competencies as they pertain to the soft skills of project management: stakeholders and communications management.

Communications management

The competency standard of communications management is described in the competency standard NCSPM507A- Manage Project Communications as “skills and knowledge required to link people, ideas and information at all stages in the project life cycle” (p.1). Further, the competency standard also states that project communications management ensures the timely and appropriate generation, collection, dissemination, storage and disposal of project information through formal structures and processes. The standard also identifies a number of performance criteria that ensures the project manager is responsible to ensure efficient and effective project communications and information. The project communications competency standard identified the following performance criteria as key to communications management:

- Identify project document requirements;
- Develop an agreed communications plan; and
- Implement and maintain agreed communication networks with all stakeholders. (p.2)
In addition, the standard identifies the key skills, attributes and knowledge the project manager needs to exhibit for effective communications management: identification of stakeholders information needs, consultation with stakeholders, and the appropriate use of technology. It should also be noted that this competency standard does indeed align with the PMBoK guides (1987, 2000, and 2004) on communications management.

*Project stakeholders*

Two competency standards from the NCSPM (2007) describe the role of stakeholders and their management requirements: Integration and Human Resource management, NCSPM501A: Manage Project Integration and NCSPM506A: Manage Project Human Resources respectively. Firstly, the integration management competency is described as:

The performance outcomes, skills and knowledge required to integrate and balance the overall project management functions of scope, time, cost, quality, human resources, communications, risk and procurement; and to align and track the project objectives to comply with all stakeholders’ requirements.

(p.1)

The key aspect of this competency is very clearly focused on identifying and considering all of the project stakeholders, as well as developing an inclusive communications strategy that accounts for all stakeholders information requirements.

Secondly, the human resource management competency is more focused on stakeholders where it describes this competency as:

…it involves planning for human resources through the management of the project team and all the project stakeholders. (p.1)
The manage project human resources competency, above all others is clearly aimed at, and focused on the function of stakeholder identification and management. Indeed, this competency standard links both project communications and the role of project stakeholders through the need of a formal communication strategy which incorporates and considers the wide range of project stakeholders. It further specifies in the performance criteria that the project manager should identify project stakeholders and verify their expectations in order to quantify project outcomes, establish a project structure to align individual and group competencies with the stakeholder requirements, communicate designated responsibilities to all stakeholders to ensure clarity of understanding of the work, continually review stakeholder expectations to resolve expectation variance and to ensure the project is on track to deliver it expected outcomes, and finally, identify and document human resource and stakeholder management plans (NCSPM506A, p.3).

Quite clearly the competency standards, as outlined above, as does the PMBoK (2004), identify and link project communications with the needs of project stakeholders. This is further supported by the researcher of this study which builds upon this idea by considering the importance of emotional intelligence and the role it plays in project management. In considering how EI supports the role of the project manager in the use of the soft skills, Mersino (2006) contends that through the use of relationship management to understand the emotions, wants and needs of others, and better understand positional power and authority, the project manager is able to accomplish what is needed.

Project management education

The literature relating to the development, definition and application of project management as a course of study is presented within the context of competence,
learning, and the links to the role of the project manager as it relates to the project soft
approach* states that “the text is written in line with the current Australian project
management competencies” (p.273), and that the basis of all good project
management education should be both on reinforcement and application of the
principles in the workplace. Moreover, Dinsmore (1999) posits that “the measurement
of individual competence in managing projects calls for reaching beyond knowledge-
based education, but to move into the field of competence assessment” (p.153).

The PMBoK was to ultimately guide the profession via a set of standards and
structure, as well as providing a guide for professional and formal qualifications
according to Pant and Baroudi (2008). According to Schwalbe (2002), project
management education and the increase of qualified project managers developed from
the release of the first edition (1987) and subsequently the second edition (2000) of
the PMBoK. So much so, that according to Schwalbe (2002), that “the number of
qualified project managers in the United States rose from 800 in 1990 to well over
30,000 in 2002” (p.15). In Australia, the increase and take-up of project management
education mirrors that of the United States. According to the AIPM website for the
same period, the number of qualified project managers rose from just under 100 in
1990 to well over 13,000 in 2002. Furthermore, a search of the National Training
Information Service (NTIS) website shows that 143 different learning institutions
across both the tertiary and higher education spectrum offer project management
courses. Verzuh (2005) noted that as early as 1990 a project management course
would have been offered by only “a handful of educational institutions” (p.3). Now,
project management “is a required subject in an MBA program, whilst also being part
of the business and management faculties in tertiary and higher education institutions” (p.4).

Dinsmore (1999) further expands on the idea of project management competence by stating that a qualified project manager “will, on average, outperform a non-qualified project manager” (p.157). This is very much in line with other views offered by a number of project management writers and researchers (Baccarini and Durrell, 2006; Beard, 2005; Bourne, 2003; Carbone and Gholston, 2004; Cicmil, Williams, Thomasc, & Hodgson, 2006; Kleim and Ludin, 1997; Loo, 2002; Pant and Baroudi, 2006; Pearce and Robins, 2006; Soderlund, 2002; Turner and Muller, 2005; Wideman, 2002). Dinsmore (1999) also adds that the measurement of competence is linked to standards like the PMBoK (2004) and the NCSPM (2007) and must be driven and supported by the peak bodies like the AIPM here in Australia. Finally, Dinsmore (1999) notes that competence and the development of the project manager can be achieved through such activities as education programs, attending conferences, attending and/or leading workshops, and on-the-job training and development.

Sense (2007) suggested that learning and development can be achieved within project teams, and formulated a model that project managers, and indeed other managers within organisations need as a means to recognise the dynamic conditions of the project environment. In citing Antoni and Sense (2001), Ayas and Zeniuk (2001), Lundin and Hartman (2000) suggested that:

There is a necessity to better understand these learning and development of the project management phenomena, the role of the project manager, and their interaction within a project setting. (p.34)

Thus, this suggests that learning and competency development within project organisations contribute to a successful project. This view is further reinforced by
Shenhar and Dvir (2007b) who suggest that educators should integrate “real-world case studies and situations which should have substantial impact on the academic educational level” (p.96).

Pant and Baroudi (2008) advance another perspective on project management education, and suggest that tacit knowledge, the domain of experiential learning, is very much acquired over time and with experience. They posit that:

The strong influence that PMBoK has, and continues to have in project management education in Australia and around the world, warrants that its authors take a more balanced approach in dealing with the both the soft and hard skills required in the profession. (p.126)

Furthermore, Motschnig-Pitrik(2006b) in a study of project management students found that the inclusion of soft skills was “well received by students” (p.1). She also noted that:

The students consider the practical exercises during the lab hours, the active participation in the course, and dialogue/discussion the top factors from which they benefit. Furthermore, the majority of the students felt that it was easier for them to work in teams and to establish social relationships in the course on project management as way to develop their soft skills. (p.1)

This view is further supported and reinforced by other project management writers and researchers including Bourne and Walker (2004), Bourne (2006), Cicmil et al (2006), Fisher, Schluter, & Toleti (2005), Loo (2002), and The Standish Group (1999 and 2001). These researchers also posit that successful projects are delivered by experienced project managers. Buckle and Thomas (2003) note that “as the profession evolves, scholars are noting a shift from a discipline based on technology and control to a focus on interactions and learning” (p.433).
Recently though three researchers (Hudson, 2008; Gillard, 2009; Teoh, 2008) have reported that project management capability building and success are very much linked to education with the movement from the classroom teaching approach to a more collaborative approach. Teoh (2008) suggests that project management education is not just about capability building, but is also about how to apply in a real-world project scenario. Teoh (2008) says that “today’s project manager needs to be not only up-skilled on the changes and evolution of project management, but also one of the keys areas of people management” (p.11), but also says that “the more enlightened organisations have acknowledged the role of capability building and successful projects through a greater investment in project management education” (p.11-12). Finally, Teoh (2008) suggests that organisations need to invest more into project management education to ensure success of projects.

Hudson (2008) writes about what he calls “the leading solutions of project management education” (p.16). Drawing on his professional experience, Hudson (2008) posits four main approaches for effective project management education:

- A twenty-day curriculum course for development and learning;
- The development of centres of excellence;
- The separation of educational requirements for various tiers of project management accountability; and
- A broad organisational-wide view which builds project capability. (p.18)

Hudson (2008) also notes that at the practitioner level the project manager should possess or complete the Diploma of Project Management (which is the focus of respondents for this study). Finally, Gillard (2009) in a field research study found that “it is becoming more evident that success in the role of project manager cannot be attained with a technical skill set only” (p.723).
In summary, Dinsmore (1999) noted that building competence through education will deliver benefits not only to the project stakeholders, but also to the wider profession of project management. Dinsmore (1999) further states that “knowledge, skill, ability, and experience will achieve successful projects” (p.165), and that the more qualified people here are in an organisation the greater the possibility that the organisation will deliver successful projects. Project management practice has long acknowledged the need to educate and train its current and future professionals. Pant and Baroudi (2008) argue “that tertiary and higher education institutions should be equipping students with the appropriate knowledge and skills in respect to their entry and work in the workforce” (p.127). Finally, Gillard (2009) highlights the value of the soft skills as part of the project manager’s skills set and writes “the need for excellent interpersonal, or soft skills, are necessary requisites for success, and although some would disagree, others advocate that these are skills that can be taught (and learned) rather than skills that are innate or genetic” (p.728).

The literature reviewed and discussed so far in this chapter shows that documents such as the PMBoK (2004) and NCSPM (2007) should and do very much guide the educational institutions in their project management programs and courses. A number of researchers (Buckle and Thomas, 2003; Dinsmore, 1999; Gillard, 2009; Pant and Baroudi, 2008; Hudson, 2008; Shenhar and Dvir; 2007b; Teoh, 2008) suggest that education needs to not only focus on the traditional paradigm (on time and on budget) but needs to include a more balanced and integrated approach to learning and teaching of the soft skills as indicated in the PMBoK (2004) and the NCSPM (2007).
Industry literature on soft skills

In the project management literature, Pinto and Slevin (1988), in what is considered a seminal piece of work in the project management industry (as cited by Turner and Muller, 2005) identified a set of ten project success factors (see Table 3), of which five success factors could be considered as requiring the soft skills.

Table 3: Soft skills success factors as cited by Pinto and Slevin (1988)

<table>
<thead>
<tr>
<th>Success Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior management support</td>
<td>Resources, authority, and power to implement</td>
</tr>
<tr>
<td>Client consultation</td>
<td>Communication with and consultation of all stakeholders</td>
</tr>
<tr>
<td>Project personnel</td>
<td>Management of project personnel</td>
</tr>
<tr>
<td>Client acceptance</td>
<td>Agreement and communication of the final project outcomes</td>
</tr>
<tr>
<td>Communication</td>
<td>Provision of timely information to all key stakeholders</td>
</tr>
</tbody>
</table>

Elmes and Wileman (1988) noted that the project manager must negotiate a myriad of work efforts in a project, as well as effectively manage the variety of project stakeholders. Pinto and Kharbanda (1995) identified a set of interpersonal skills a project manager should possess. These include amongst others, communication skills, negotiation skills and relationship management. They also stress that project management is based on people management which results in interpersonal skills becoming critical to project management success. They also suggested that effective project communications across the diverse nature of the project stakeholder group is required to realise successful project outcomes. White and Fortune (2002) supported this view by positing that these functions of the project are indeed “challenges for the project manager” (p.3). Similarly, Woodward (2005) noted that “evidence suggests that an over reliance of the traditional measures of success may actually be obscuring opportunities to create value and inhibiting the
project manager to be truly successful” (p.1). Furthermore a project that fails to deliver what the key stakeholders want will rarely be considered successful. This discussion further reinforces the view that a growing number of researchers and evidence within the industry have pointed to a new and alternate paradigm of how project success should be viewed, that is, the need to look through the lens of the project soft skills: stakeholder and communication management.

Some of the literature (Baker, 2005; Hartley, 2003; Maylor, 1999; and Schwalbe, 2002) itemise the fundamental questions a project manager should consider when developing a communication strategy. These include: the audience, the information, the method, the originator and the frequency of the information. Strang (2003) noted that “managing projects successfully requires a mixture of interpersonal ability, technical competency, and the capability to understand people and leadership environments” (p.3). In advancing his principles and thoughts of project success Wideman (2000) noted that:

- All stakeholders should be working toward the same or similar goal;
- All stakeholders have been identified and agree on the project’s outcomes;
- The appropriate skills, knowledge and experience is contained across the wider project organisation; and
- Everyone involved in the project wants the project to succeed. (p.1)

In 2002, Max Wideman wrote a paper discussing project personalities and stated that “simply being on time and on time budget does not necessarily mean that the project is successful” (p.1). In addition, Wideman (2002) reported that success or otherwise of the project is dependent on the people involved and how they manage the project, and in supporting this assertion identified the main characteristics of the project manager as being:
• Stakeholder centric;
• Information generator;
• Able to win stakeholder support;
• Listen to stakeholders; and
• Maintain stakeholder contact. (p.11)

The Standish Group, publishers of the CHAOS reports (1999 and 2001), that report on the reasons of project success and failure, and provides details and information of over 400,000 projects worldwide, has identified several factors that go to making projects successful. These include:

• Executive support throughout the project life;
• Projects are people-centric;
• Relationships need to be managed throughout the entire project lifecycle;
• Communication plays a vital role in project success;
• 97% of successful projects have an experienced project manager at the helm;
• Clear understanding of the project requirements across the whole stakeholder group; and
• Successful projects are delivered by experienced project managers with validated skills and knowledge through practical application and experiences. (p.4)

Project management success according to The Standish Group (2001) is delivered by experienced project managers, who can balance the needs of stakeholders with the projects outcomes via a well defined and documented communication approach. Hence, the Standish Group (2001) suggests that any
project management governance and support structures should place the highest priority upon the development of appropriate and effective project information and stakeholder management, whilst also integrating the key hard project success factors. This is supported by Ritchie (2007) who in a review of over fifty projects, found that stakeholder and communications management improved customer satisfaction, reduced the risk events, and increased the success of the project.

Woodward (2005) documented a number of project management case studies. One in particular is the Sydney Opera House. This project was touted as being a “spectacular failure” (p.2), under the traditional view of project success: on time and on budget. Construction started in 1959 and was to take four years to build at a cost of seven-million dollars. It was completed in 1973 at a cost of over $100 million. However, from a soft skill perspective the project was considered a success as it met its brief of being one of the most recognised buildings in the world whilst also enhancing the city skyline and image.

The Standish Group (1999 and 2001) also found that the reason projects succeed or fail is because of people. Specifically, they found that projects fail due to the lack of project management experience and the lack of stakeholder support and involvement. They suggest that well defined roles and responsibilities of all stakeholders are vital to increase the chance of project success; they call this collaboration management. The Standish Group (1999 and 2001) contends that managing the close relationships with all stakeholders through effective communication is the most important aspect of the project. Collaboration management they suggest can mitigate project risk by sharing knowledge, stakeholder management, effective communications, and information management.
Verzuh (2005) contends that project communication ranks among the key factors of a project. Specifically, effective project information dissemination and distribution among all stakeholders involved in the project is the key to measuring a successful project. Verzuh (2005) stated that good effective communication links into the stakeholder’s responsibilities and is also the foundation of effective relationships and ultimately stakeholder management. Similarly Baker (2005) asserts that effective project communication is a prerequisite for a successful project. Baker (2005) also writes that the timing, media and type of documents, coupled with the stakeholders, will vary throughout the life of the project. Furthermore, Baker (2005) notes that stakeholders will have a preference for the method and the type of project documents they receive. Ultimately, the success of a project depends on effective document distribution that reaches the right people in a user-friendly format (Baker, 2005). Yet, Bourne (2003) has reported that project managers focus greatly on standard success factors of a project (scope, time, cost and quality) whilst neglecting the stakeholder and the communication components. Bourne (2003) noted that project managers use and learn from previous projects various tools and techniques for planning and management. Bourne (2003; citing Briner et al, 1996) stated that the successful completion of a project depends not only on the hard criteria (scope, time, cost and quality) but also on the soft criteria such as relationships and the tools to manage the relationships such as information flow throughout the lifecycle of a project. Bourne (2005) argued that the success or failure of a project can be linked to soft skills of the project manager such as stakeholder and relationship management, noting that these skills are acquired through years of experience, knowledge and application of project management techniques such as effective information flow and document management. Today’s project manager according to Bourne (2003) must be able to
balance the requirements of project management, stakeholder expectations and relationships that surround the project. It is expected that the project manager at this level is competent within the profession, and understands all the factors (both hard and soft) that contribute to project success by ensuring stakeholder involvement, managing the information flow and understand the stakeholder’s expectations.

Additional research on project management from Bourne and Walker (2004) suggests that the PMBoK (2004) tends to be primarily concerned with management competencies (the craft), and the hard skills expected of practising project management professionals with knowledge areas such as project human resource management and project communication management (the essential relationship-focused areas) relegated to secondary (and less important) roles. Hence, Bourne (2006) contends that relationship management skills are vital for achieving project outcomes that fully address stakeholder expectations throughout the project lifecycle. Relationship skills according to Bourne (2006) are required to aid the effective application of hard skills; it is people, using knowledge, creativity (and often technology) that realise projects, not techniques or hardware. Expanding on project management success has raised issues about competencies.

Fisher, Schluter, & Toleti (2005) outline a model that links project success and the soft skills based on what they call “the success profile competency set” (p. 905). This they note includes customer focus, stakeholder management, building and maintaining relationships, teamwork, and communications. This is supported and reflected in a study conducted by Gillard (2009) and Loo (2002) who found that people (soft) skills were rated higher than technical skills. These included stakeholder participation, project communications, teamwork, and motivation. It has been reported in substantial project management literature (Baccarini and Durrell, 2006;
Beard, 2005; Bourne, 2003; Carbone and Gholston, 2004; Gillard, 2009; Kleim and Ludin, 1997; Loo, 2002; Mersino, 2006 and 2007; Motschnig-Pitrik, 2006b; Pant and Baroudi, 2006; Pearce and Robins, 2006; Soderlund, 2002; Turner and Muller, 2005) that the key to project success is the relationships developed throughout the project lifecycle and the management of key stakeholders and their expectations.

This was further evidenced at a PMI conference in 2006, where a paper delivered by Dr Lynda Bourne suggested that effective communication is a vital component of process building and development of relationships which lead to stakeholder management. Conversely, Carbone and Gholston (2004) actually link the soft skills to project management education programs, and contend that the focus of most project management training/education programs, has been on the technical (hard) skills of ‘on time and on budget’. Carbone and Gholston (2004) suggest that this is due to the technical skills being easier to deliver in a training/education environment. They note “particular focus must be placed on the soft skills aspect of the project manager’s role” (p.10).

Finally, early in project management literature, Kleim and Ludin (1997) identified ‘the people side’ of project management as being important; they suggested that educators should increase their efforts in not only the explicit (hard/technical) skills, but also the tacit (cognitive, rational, and soft) skills. This view is supported by Kloppenborg and Petrick (1999) who posited that project management, and indeed the role of the project manager, requires more than just technical competency (as noted in the PMBoK, 2004), but should encompass the ability to manage teams. Bourne and Walker (2004) also support this notion by suggesting that relationship skills actually complement the effectiveness of the project hard skills because project outcomes are achieved by people.
Pearce and Robins (2006) noted that successful project managers learn to deal with people, which they called “people skills” (p.2) and also suggested that, whilst they may be called soft skills they are often the hardest to master. In their research, Pearce and Robins (2006) found that project failure was due to the poor management of the people dimensions rather than because of technical difficulties. They determined that project management education programs need to focus not only on the technical (on time and on budget), but also on the soft skills of the project management skill set. Another view offered by Mantel, Meredith, Shafer, & Sutton (2005) categorised the soft skills that a project manager should possess into six areas: communication, organisational, team building, leadership, coping, and technological. They suggest that effective project management rests on the human, conceptual, and technical skills. However, Turner and Muller (2005) took another view of the project manager’s soft skills, where they identified a set of critical success factors (CSFs) which take into account organisational and stakeholder perspectives. They stated that in recent times CSF frameworks have been developed to ensure that project success is stakeholder-dependent and must involve interaction and engagement between the project manager and project’s key stakeholders.

In 2007, Christopher Gumma from KPMG International, a worldwide consultancy and advice organisation, wrote on the challenges and experiences of managing large projects. One of the challenges Gumma (2007) noted was stakeholder engagement, suggesting that one aspect of projects that is often overlooked is that of the cultural and geographical requirements. Gumna (2007) suggests “tests the project manager ability to develop the right collaborative spirit and project environment” (p.17). Moreover, he notes that the project manager should be focusing on and managing five key areas that would ensure project success:
• Initial project kick-off with the right stakeholders;
• Maintain momentum by considering the needs of all stakeholders;
• Ensure business-as-usual stakeholders are on-board;
• Rigorous stakeholder identification and analysis; and
• Ensure senior executive support and involvement. (p.18)

The view taken by Gumn (2007) is also supported by Mersino (2007) in his application of EI to the role of the project manager in relationship and stakeholder management. Mersino (2007) writes:

As a project manager, I continued to learn and apply my project and people (soft) skills in managing relationships and people, I was able to effectively lead large teams, build strong relationships with project stakeholders, and successfully achieve the goals of the project. (p.5)

Soft skills also referred to as ‘micro-social’ skills, are universally recognised as being critical to successful project management (Muzio, Fisher, Thomas, & Peters, 2007). Outside of the project management field, Muzio et al (2007) also identified that multiple studies have shown that soft skills can compensate for lack of more traditional cognitive intelligence, and that they are often the differentiating factor between an adequate and stellar project outcome. Muzio et al (2007) further suggest that only by truly understanding the client’s needs, and engaging with all the key stakeholders, can the project manager deliver a successful project. Bourne (2009) sums up the obvious link between project success and stakeholders by writing:

Success is gifted to you by your stakeholders, you have to earn the gift but there is no way of knowing for sure if it will be granted. This means as a project manager you must deliver the planned objective. But achievement on
its own does not translate to success. Success is when your achievement is acknowledged by your key stakeholders and they declare it a success. (p.1)

This discussion on the soft skills and their relevance to projects and indeed the role of the project manager, necessitates noting research by Murray-Webster and Simon (2007) who suggested that two broad paradigms exist in project management literature today: Methodical and Operational Competencies (MOCs) and Human and Organisational Competencies (HOCs). The MOCs (the hard skills) Murray-Webster and Simon (2007) suggested are made up by methodology, systems, roles and responsibilities, risk and quality management, and benefits realisation. Whilst the other, they suggested the HOCs (the soft skills) include leadership, political factors, delegation, communication, trust. They suggest that “no one perspective is appropriate to all situations, but the project manager needs to adapt their approach to suit the project’s needs and its stakeholder group” (p.2). Murray-Webster and Simon (2007) introduced the term ‘situational project management’, which involves the use and application of both broad project paradigms to suit the project environment.

Finally, in the course of conducting the literature review, a number of stakeholder mapping models have been identified that have been developed by researchers and consultants in the project management field (Bourne, 2006; Fletcher, Guthrie, Steane, Roos, & Pike, 2003; Turner, Kristoffer, & Thurloway, 2002; Verzuh, 2005) which can assist in the stakeholder analysis process. The key attribute of these tools is the ability for the project manager to visualise the stakeholder community surrounding their particular project. Consequently, the concept of representing data collected about stakeholders as diagrams, graphs or drawings has been adopted by many researchers and consultants based on evidence from some of literature discussed previously. The key element of an effective mapping process is as far as possible to
replace subjectivity with objective measures and to make the assessment process transparent. This transparency will allow the basis of any assessment to be clearly understood by others and will facilitate review and updating as appropriate (Bourne, 2006). Two models of stakeholder mapping are now described.

**Stakeholder mapping models**

*Power-influence grid*

MindTools.com, one of the Internet's most-visited project management resource sites, documented a stakeholder identification and analysis tool. This tool is based on two major elements for stakeholder management: stakeholder analysis and stakeholder planning. Stakeholder analysis it is suggested is the technique used to identify the key people who have to be “won over” (p.1). The stakeholder planning then is used to build the support that helps the project manager deliver a successful project outcome. The benefits from this type of stakeholder approach are:

- The project manager is able to use the opinions of the most powerful stakeholders to shape the project in the initiation stage;
- Gaining support from powerful stakeholders can help the project manager win more resources - this makes it more likely that the project will be successful;
- By communicating with stakeholders early and often, the project manager can ensure that the stakeholders know what the project manager is doing and fully understands the benefits and outcomes of the project, which in turn means they can support the project manager when necessary; and
- The project manager can anticipate what people's reaction to the project may be. (p.2)
Moreover, in this model, MindTools.com suggests a four-step approach to stakeholder analysis: Identification, Prioritisation, Understanding their needs, and Stakeholder Management. In the first step, identification: they note that all project stakeholders must be identified. Second, it is stated to prioritise the stakeholders by using a Power-Influence grid. Figure 4 below shows a sample of the Power-Influence grid. The basis of the analysis is as follows:

- High power, interested people: these are the people you must fully engage with, and make the greatest efforts to satisfy;
- High power, less interested people: put enough work in with these people to keep them satisfied, but not so much that they become bored with your message;
- Low power, interested people: keep these people adequately informed, and talk to them to ensure that no major issues are arising. These people can often be very helpful with the detail of your project; and
- Low power, less interested people: again, monitor these people, but do not bore them with excessive communication. (p.3)
Thirdly, it is noted the project manager needs to understand all the project stakeholders. Mind Tools.com posits that the project manager needs know more about the key stakeholders. More importantly the project manager needs to understand how best to engage them in the project and how best to communicate with them. Finally, it is stated that the project manager must now plan the approach to stakeholder management, and it is suggested that by focusing on the high-power/high-interest stakeholders first and the low-interest/low-power stakeholders last, the project manager can devise a practical plan that communicates with people as effectively as possible and that communicates the right amount of information in a way that neither under nor over-communicates, whilst meeting their information requirements across the entire project lifecycle.

*The Stakeholder Circle™*

To illustrate the effectiveness of mapping and visualising project stakeholders, Bourne (2006), in developing a Stakeholder Circle noted that through effective
communication lines key stakeholder relationships can be used as a warning signal
that may exist with the key project stakeholders. The first step, Bourne (2006)
contends, in building any stakeholder map is to develop a categorised list of the
members of the stakeholder community. Once the list is reasonably complete it is then
possible to assign priorities in some way, and then to translate the ‘highest priority’
stakeholders into a table or a picture. The potential list of stakeholders for any project
will always exceed both the time available for analysis and the capability of a
mapping tool to sensibly display the results, hence the challenge is to focus on the
‘right stakeholders’ who are currently important and to use a tool to visualise this
critical sub-set of the total community. The Stakeholder Circle Bourne (2006) offers a
mechanism for assessing each key stakeholder’s relative influence and an approach to
understanding their expectations. It also helps project managers define appropriate
procedures for engaging stakeholders. In the methodology section, Bourne (2006),
notes that an important aspect of the project environment is the need to understand the
directions of influence in which the project manager and the team must operate. This
is the basis on which the Stakeholder Circle methodology operates and it is argued
that effective communications is a vital component in the process of building and
maintaining relationships, and is essential for maintaining the support and
commitment of all stakeholders.

The model comprises two key elements: concentric circles that indicate
distance of stakeholders from the project manager. A sample of the Stakeholder Circle
is shown below in Figure 5.
The Stakeholder Circle is based on the premise that a project can only exist with the informed consent of its stakeholder community (Bourne, 2002), and that managing the relationships between the stakeholder community will increase the project manager’s chances of delivering a successful project outcome. A visualisation tool according to Bourne (2006) highlights who are the key stakeholders that need to be closely managed to ensure project success. Finally, Bourne (2006) outlines a five-step of process for the Stakeholder Circle: identification, prioritisation, maintaining engagement, regular review, and interpretation.

**Emotional Intelligence and project soft skills**

*Overview and background*

Why consider emotional intelligence for project managers? In answering this question it must be noted that projects are inherently risky and project managers need all the help they can get to succeed. Project managers cannot rely only on the typical
and traditional hard project management skills (on time and on budget) and an understanding of the PMBoK (2004). The project manager also needs the soft skills or interpersonal skills to ensure project success (Baccarini and Durrell, 2006; Beard, 2005; Carbone and Gholston, 2004; Pant and Baroudi, 2006; Kleim and Ludin, 1997; Loo, 2002; Muzio et al, 2007; Pearce and Robins, 2006; Soderlund, 2002; Turner and Muller, 2005). There is now a growing body of work and evidence that suggests that by understanding emotional intelligence, the project manager can leverage their emotions to build their soft skills and charisma (Mersino, 2006).

Projects are fundamentally about relationships, as evidenced in the PMBoK (2004) and NCSPM (2007). The better project managers are at developing and sustaining relationships, the more successful their projects will be. Emotional Intelligence provides a framework for excelling at soft skills and building the relationships necessary to succeed (Mersino, 2006).

The first use of the term Emotional Intelligence (EI) is usually attributed to Wayne Payne's doctoral thesis, *A study of emotion: Developing emotional intelligence* from 1985. Prior to this however, the term EI was used by Leuner (1966) who discussed it in relation to the emancipation of women. Later, Morrow, Bower, & Greenspan (1989) also put forward an EI model for Human Development, followed by Salovey and Mayer (1990) and more recently, in the widely regarded research and work done by Daniel Goleman (1995, 1998, and 2002). From this, two broad approaches were introduced: the ability based model, described by Salovey and Mayer (1990) and a competency framework described by Goleman (1995). Salovey and Mayer’s (1990) concept of EI strives to define EI within the confines of the standard criteria for a new intelligence. Following their continued research in the area, their initial definition of EI was revised to:
The ability to perceive emotion, integrate emotion to facilitate thought, understand emotions, and to regulate emotions to promote personal growth. (p.197)

The EI model by Salovey and Mayer (1990) proposes that individuals vary in their ability to process information of an emotional nature and in their ability to relate emotional processing to a wider cognition. This ability is seen to manifest itself in certain adaptive behaviours.

Conversely, the EI model introduced by Goleman (1995) focuses on EI as a wide array of competencies and skills that drives leadership performance. Goleman's (1995) model outlines four main EI constructs:

- Self-awareness - the ability to read one's emotions and recognize their impact while using gut feelings to guide decisions;
- Self-management - involves controlling one's emotions and impulses and adapting to changing circumstances;
- Social awareness - the ability to sense, understand, and react to other's emotions while comprehending social networks; and
- Relationship management - the ability to inspire, influence, and develop others while managing conflict. (p.5)

Goleman (1995) includes a set of emotional competencies within each construct of EI and contends that emotional competencies are not innate talents, but rather learned capabilities that must be worked on and developed to achieve outstanding performance. Goleman (1995) posits that individuals are born with a general emotional intelligence that determines their potential for learning and applying these emotional competencies.
It is evident that the EI discussion has some resonance with the role of the project manager as had been discussed and noted in the PMBoK (2004), the NCSPM (2007), and the wide range of industry literature. Mersino (2006) writes that the project manager is a communicator by being the centre of all project communications and by being the one with the most complete picture of the project. Mersino (2006) further adds that the project manager is a relationship manager who needs to understand the emotions and needs of all project stakeholders. In the final section of this chapter, the role that EI may and does play in projects and the role of the project manager is discussed.

*Emotional Intelligence and projects*

The EI model introduced by Goleman (1995) considers EI as a range of competencies and skills that drive managerial performance. In *Working with Emotional Intelligence* (1998) Goleman further explored the function of EI on the job and claimed EI to be the strongest predictor of success in the workplace. Given this, the project managers are generally faced with a number of challenges when working with people, including shared resources, virtual teams and imposed rather than selected team members. How the project manager deals with and manages these situations is reflected in their EI competence level. Goleman’s book (1998)) further details an Emotional Competence Framework which affects personal, social, and work life. In Table 4, Goleman’s competency framework has been adapted by Mersino (2006) with relevance to project management in the form of a self-assessment checklist for the project manager. This checklist has been suggested as a way of self-reflection, awareness, and possible areas of development with respect to EI competencies for the project manager as a way to assist with the number of
challenges the project manager faces when working with all the stakeholders in a project.

**Table 4: Goleman’s Emotional Competency Framework (1998), adapted by Mersino (2007)**

<table>
<thead>
<tr>
<th>Competence</th>
<th>Attribute</th>
<th>I display this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional awareness</td>
<td>Recognising one’s emotions and their effects</td>
<td></td>
</tr>
<tr>
<td>Self confidence</td>
<td>A strong sense of one’s self worth and capabilities</td>
<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>Taking responsibility for personal performance</td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td>Flexibility in handling changes</td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>Being comfortable with novel ideas, approaches, and new information</td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>Aligning with the goals of the group or organisation</td>
<td></td>
</tr>
<tr>
<td>Understanding others</td>
<td>Sensing others’ feelings and perspectives</td>
<td></td>
</tr>
<tr>
<td>Developing others</td>
<td>Sensing others’ development needs and bolstering their abilities</td>
<td></td>
</tr>
<tr>
<td>Political awareness</td>
<td>Reading a group’s emotional currents and power relationships</td>
<td></td>
</tr>
<tr>
<td>Influence</td>
<td>Wielding effective tactics for persuasion</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Listening openly and sending convincing messages</td>
<td></td>
</tr>
<tr>
<td>Conflict management</td>
<td>Negotiating and resolving disagreements</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td>Inspiring and guiding individuals and groups</td>
<td></td>
</tr>
<tr>
<td>Change catalyst</td>
<td>Initiating or managing change</td>
<td></td>
</tr>
<tr>
<td>Building bonds</td>
<td>Nurturing instrumental relationships</td>
<td></td>
</tr>
<tr>
<td>Collaboration, cooperation, and</td>
<td>Working with others toward shared/collective goals, and group synergy</td>
<td></td>
</tr>
<tr>
<td>team capabilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
It can be noted from Table 4 that all the skills and attributes are essentially soft
skills: stakeholder and relationship management, and communications. This seems to
support and endorse the argument on the role of the project manager in managing the
soft skills in a project, or as Goleman (1998) contends: the relationships.

Mersino (2006) further developed and linked Goleman’s (1998) EI model to
show how it relates to project management. In Figure 6, Mersino (2006) notes that
project success in relationship management and of the project manager’s ultimate
success is based on three of the key components (or soft skills competencies) of

![EQ Model for Project Management](image)

*Figure 6: Goleman (1995) EI model, adapted by Mersino (2006) for project
management success*

Mersino (2006) contends that the arrow shown in the diagram shows the project
manager’s progress through the domains of the Emotional Quotient (EQ), or the
project manager’s competencies. The arrow is also intended to show that the
relationship management (the soft skills) domain builds on the first three EQ domains.
Mersino (2006) argues that project managers who manage relationships to understand the needs of all stakeholders will become more effective negotiators, and indeed better relationship managers. Furthermore, the project manager is the centre of project communications (as was evident with the competencies and practices documented in the PMBoK, 2004, and the NCSPM, 2007). The project manager will typically have the most relevant and up-to-date information about the project, and is often the one with the most complete picture.

Goleman's (2002) most recent framework noted in *Primal Leadership: Realizing the Power of Emotional Intelligence*, led him to identify the following seven competencies: Communication, Inspiration, Influence, Developing Others, Change Catalyst, Conflict Management, and Teamwork and Collaboration. In considering these seven competencies of emotional intelligence, Goleman (2002) developed a framework which fits nicely into the role of the project manager in managing relationships in projects:

- Communication – sharing information and considering the needs of stakeholders;
- Inspirational Leadership - guiding and motivating with a compelling vision;
- Influence - wielding and using a range of tactics for persuasion;
- Developing Others - bolstering others' abilities through feedback and guidance;
- Conflict Management - resolving disagreements between and with stakeholders;
- Change Catalyst – project success and outcomes as a change agent; and
• Teamwork and Collaboration - cultivating and maintaining a network of relationships, with cooperation and teambuilding. (p.9)

The ideas and skills noted and described by PMI (2004) in respect of stakeholder management, are also supported by Mersino (2006) in describing the application and use of emotional intelligence (EI) as it pertains to the role of the project manager and the application to the soft skills. Mersino (2006) linked the function of stakeholder management to what Goleman (2002) describes as organisational awareness. Mersino (2006) in citing Goleman (2002) describes organisational awareness as:

A leader with a keen social awareness can be politically astute, able to detect crucial social networks and read key power relationships. Such managers can understand the political forces at work in an organisation, as well as the guiding values and unspoken rules that operate among people there. (p.5)

In 2007, PMI acknowledged that whilst the PMBoK (2004) covers the 44 processes and the countless tools and techniques in each process, it barely touches the surface on the people (soft) skills that the project manager needs for success. They endorsed Anthony Mersino's book *Emotional Intelligence for Project Managers* (2007) suggesting it does an excellent job in bridging the gap between the knowledge (as discussed in the PMBoK, 2004) and application within the profession. Mersino (2007) posits that “the project manager that masters emotional intelligence will set themselves apart from other project managers” (p.6).

Muzio et al (2007) note that the key to soft skills as it pertains to the PMBoK (2004) is contained in the knowledge areas entitled Human Resource Management (and stakeholder management) and Communications Management. However, it should be noted that even in the PMBoK (2004), the stakeholders’ needs and the link
to project communication and people are evident within the accepted practices of the project management profession. Appreciating that communication is a key element in the soft skills of project management it is important to address communications management.

Summary

This literature review provided a history and background of project management, whilst also discussing the traditional view of project management: on time and on budget. Further, it presented details about project management as field of study and implications for education programs. The literature introduced the background and overview of two key components of the project management field: the Project Management Body of Knowledge (PMBoK, 2004) and the National Competency Standards of Project Management (NCSPM, 2007). It identified, reported, and documented the wide views from across the project management field on what constitutes a successful project, and the differentiation between the hard and soft skills. It was established that stakeholders are indeed a key component to the success of a project. In addition, it referred to models as tools to assist the project manager in identifying, analysing, and managing the key project stakeholders. Finally, the elements of Emotional Intelligence (EI) were introduced as a potential approach for the project manager to better understand and apply the soft skills in the conduct of a project. Literature was accessed and reviewed from a wide range of Australian and international sources that clearly indicated that project success can be enhanced through stakeholder management. This is important, given Pant and Baroudi’s (2006) comment that the coverage of soft skills has been piecemeal and inadequate.

One of the key requirements within projects that were identified in the literature is to keep all stakeholders informed of those aspects of the project that are
important to them (Dinsmore, 2006). To this end, it is vital for the project manager to convey the information and documents to the appropriate stakeholders at the right time in accordance with an agreed strategy. Furthermore, a number of Australian and international writers and researchers (Baccarini and Durrell, 2006; Beard, 2005; Bourne, 2003, 2005, and 2009; Cicmil et al, 2006; Dinsmore, 2006; Gillard, 2009; Hartley, 2003; Kleim and Ludin, 1997; Loo, 2002; Motschnig-Pitrik, 2006b; Muzio et al, 2007; Pant and Baroudi, 2006; Pearce and Robins, 2006; Schwalbe, 2002; Verzuh, 2005; Soderlund, 2002; Turner and Muller, 2005) clearly highlight the importance of stakeholders and the relationship management as part of the soft skill set of the project manager. These writers noted that the strategy for project communication in projects is based on four key areas: the audience (stakeholders), the media (method) used, the originator and the frequency. Bourne (2009) posited that “one-on-one communication to build and foster positive relationships will deliver a successful project” (p.2).

Two stakeholder mapping tools were discussed: the Power-Influence grid and The Stakeholder Circle (Bourne, 2006). They noted that the project manager needs to understand all the project stakeholders. They posited that the project manager needs to know more about the key stakeholders. More importantly the project manager needs to understand how best to engage them in the project and how best to communicate with them and manage the key stakeholder relationships that may exist with the key project stakeholders.

Finally, consideration of the theory of emotional intelligence for project managers was presented. Projects are inherently risky and project managers need all the help they can get to succeed. Mersino (2006 and 2007) developed and linked Goleman’s EI model to show how it relates to project management.
Some literature points to project management being measured on the hard factors (on time, on budget, to a scope and specification). Conversely, many other writers and even some studies contend that the soft skills of project management (such as stakeholder management) may actually be the measure and driver of project success.

The key purpose of this literature review was to identify the concepts and principles to be considered in this study. The concepts and principles described in this literature review provided some useful direction when considering the soft skills and in particular highlighted stakeholder management and communication management as the key parameters in the project soft skills. The two frameworks presented in figures 1 and 2 drew the various concepts and principles of the wider project management field, industry principles and competencies, and the project soft skills together and was the basis for and guided the research design, methodology, and the questionnaire development of this study.

The next chapter considers the research methodology, its purpose, and how it was designed and implemented in this study.
Chapter 3

Methodology

Introduction

The purpose of this study was to determine the Diploma of Project Management graduates’ views and understanding pertaining to project management soft skills. The soft skills domain for this study draws on the work of Bourne (2003) who contends that soft skills are primarily driven by stakeholder and communication management (Bourne, 2003). The research investigated the respondents’ attributes and project management professional experience and knowledge, the roles they currently hold and have performed in projects, whilst also looking at the industry specific approach to project communications, and the stakeholders’ needs. It is argued that the findings of the study will add to the now growing body of evidence and literature on project success being more than just the hard skills (on time and on budget); but also including the soft skills.

This chapter provides a discussion of the research methodology, its purpose, and how it was designed and implemented. Further, it also explains the quantitative methodology chosen for the research study, and provides the supporting rationale for this research methodology (a quantitative approach) as being appropriate for its purpose.

As was established in chapter 2, there has been a deficiency of literature regarding project stakeholders and communications: the management of the soft skills as a key to project management success (Bourne, 2003). This study attempts to address this deficiency by examining the soft skills in project management which can lead to project success as it pertains to Diploma of Project Management graduate views, experiences and project outcomes.
The literature review noted that many project management researchers such as Dinsmore (1999), Hartley (2003), Turner (1999) and Schwalbe (2002), have focused on the hard factors (on time, and on budget) of project management whilst ignoring the soft skills: stakeholder and communications management. The project management literature review showed that the main focus of industry writing and research for improving project management practice has been directed at enhancing the hard skills (Dinsmore, 1999; Hartley, 2003; Schwalbe, 2002; Turner, 1999; and Wideman, 2002). Yet recently, mainly through project management researchers such as Baccarini and Durrell (2006), Beard (2005), Bourne (2005 and 2006), Gumm (2007), Muzio, Fisher, Thomas, & Peters, (2007), Pant and Baroudi (2006), Pearce and Robins (2006), and Ritchie (2007); they have identified and posited that project success may be measured by not just the hard skills paradigm, but that projects can indeed be a success through stakeholder and communications management: the soft skills.

**Research questions**

The study aimed to investigate the understanding and awareness of Diploma of Project Management graduates from a private Registered Training Organisation (RTO): the Australian College of Project Management (ACPM) regarding their perceptions and attitudes of graduates towards the soft skills of project management.

Based on this intent and the literature the research questions for this study were:

1. What are the general professional characteristics of Project Management Diploma graduates in respect of their professional experience in project management, their educational qualification(s) and the type of industry(s) they have or are currently employed in a project role?
2. What are the attitudes of the graduates towards the soft skills of projects as they relate to communication and stakeholder engagement?

3. What, if any new information provided by the graduates can inform the curriculum content within the project management education field pertaining to the soft skills?

**Research epistemology**

Epistemology is a branch of research philosophy which influences the structure and process of social research (Sarantakos, 2005). Epistemology informs methodologies about the nature of knowledge, or about what counts as a fact and where knowledge is to be sought. Epistemology is a form of inquiry that studies the nature of knowledge and the process by which knowledge is acquired and validated (Gall, Gall, & Borg, 2003). In its simplest form, epistemology is the science of knowing (Babbie, 1995) and, in terms of research it is the theory of knowledge that underlies the theoretical perspective of the research (Crotty, 1998). Moreover, Sarantakos (2005) states that a positivist research paradigm contains realist/objectivist ontology and guides the strategy of quantitative methodology, and therefore prescribes fixed designs of quantitative methods.

**Positivism**

Within the research epistemology, which Babbie (1995) defines as the science of knowing, is the concept of positivism. Researchers note that positivism aims to explain, predict, and control phenomena (Guba and Lincoln, 2004). Positivism is the epistemological doctrine that physical and social reality is independent of those who observe it and that, observations of this reality if unbiased and constitutes scientific knowledge (Gall et al, 2003). The positivist philosophy has, at its core, the assumption that theoretically based predictions can be tested with data collected from the
objective world (Weber, 2004). Gall et al (2003) noted that, behavioural researchers in education exemplify an approach to scientific inquiry that is grounded in positivist epistemology. Consequently, quantitative research is often taken as identical to positivist research because it contains the epistemological prescriptions that show how this methodology should conduct research (Sarantakos, 2005). Expanding on quantitative research, and based on positivism, are the complementary notions of objectivism and realism.

**Objectivism and Realism**

Realism is a characteristic of quantitative methodology because it perceives reality to be objective, simple, and fixed. Reality consists of sense impressions, that is, what is perceived through the senses (Sarantakos, 2005). Yet, according to Hugli and Lubcke (1997) reality also exists independent from consciousness and experience. Gall et al (2003) noted that some researchers assume that features of the social environment, that is, both the social and physical reality, have objective reality, which means that these features exist independently of the individual who created them or who observe them. Educational researchers, therefore, who subscribe to the positivist position believe that scientific inquiry must focus on the study of multiple social realities that is, different individuals as they interact in a social environment (Guba and Lincoln, 2004).

Objectivism is closely linked to realism because reality and truth exist objectively and can be discovered and adequately measured (Sarantakos, 2005), but can be made an object of human perception (Hugli and Lubcke, 1997). Observance of objective detachment, value neutrality, and an unbiased approach should be taken by researchers to quantitative research (Creswell, 2005). Researchers who take an
objectivist (positivist) view will choose a range of traditional options in research such as surveys and questionnaires (Cohen, Manion, & Morrison, 2005).

**Quantitative research paradigm**

Quantitative research is the systematic scientific investigation of quantitative properties, phenomena, and their relationships (Wadsworth, 1997). Quantitative research is widely used in both the natural and social sciences, including education, physics, biology, psychology, sociology, geology, and journalism (Krathwohl, 2004). The objective of quantitative research is to develop and employ mathematical models, theories and hypotheses pertaining to natural phenomena (Sarantakos, 2005). The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships (Gall et al, 2003). This type of research is most often used in the social sciences.

Gall et al (2003) note that quantitative research is generally approached using scientific methods which include:

- The generation of models, theories and hypotheses;
- The development of instruments and methods for measurement;
- Experimental control and manipulation of variables;
- Collection of empirical data;
- Modelling and analysis of data; and
- Evaluation of results (p.25)

In the social sciences particularly, quantitative research is often contrasted with qualitative research, which is the examination, analysis and interpretation of observations for the purpose of discovering underlying meanings and patterns of
relationships, including classifications of types of phenomena and entities, in a
manner that does not involve mathematical models (Sarantakos, 2005).

**Research methodology**

Quantitative studies describe behaviours with measures or observation scales
(or both) and are focused on a cause-and-effect relationship between two variables
(Krathwohl, 2004), and quantitative research is virtually synonymous with positivist
research (Gall et al, 2003). Quantitative research is grounded in the assumption that
features of the social environment constitute an independent reality and are relatively
constant across time and settings (Gall et al, 2003). They further state that positivist
researchers develop knowledge by collecting numerical data on observable behaviours
of samples and then subjecting these data to numerical analysis. Wadsworth (1997)
states that “quantitative research is the how many, to what extent, or how much
aspect, which involves counting and other data analysis” (p.109). Creswell (2005)
asserts that quantitative research is an appropriate educational research approach in
which the researcher decides what to study, asks specific and narrow questions,
collects numeric data from participants, and analyses the data using statistics, in an
objective and unbiased manner. Therefore, given that this study is based on the
epistemology of a positivist, realist, and objectivist strategy this study is a quantitative
study. A positivist, objectivist, and realist approach (quantitative research) looks to
explain how one variable affects another (Creswell, 2005). Variables, as posited by
Creswell (2005), are an attribute or characteristic of individuals that the researcher
studies.

A typical data collection preferred by quantitative researchers is through the
use of survey/questionnaire instruments (Sarantakos, 2005). Surveys (or
questionnaires) according to Sarantakos (2005) are the most commonly used method
of data collection in the social sciences; so common, that is quite often mistakenly taken to be the method of social research. A number of other researchers (Cohen, Manion, & Morrison, 2005; Creswell, 2005; Krathwohl, 2004) report that survey questionnaires are used in a variety of contexts with an instrument used for data collection. In general, Sarantakos (2005) suggests questionnaires are an excellent method of data collection with the use of open and closed questions. Creswell (2005) posits that quantitative research uses an instrument to measure the variables in the study. It contains specific questions and response possibilities that the researcher establishes or develops in advance of the study. These instruments would include survey questionnaires. The intent of this type of approach is to apply the results (called generalising results) from a small group to a large number.

As a research strategy Sarantakos (2005) contends that quantitative research (based on positivist, objectivist, and realist approach) has the following central criteria:

- Use of empirical methods;
- Objective;
- Clarity in design, and reliance on methods and procedure;
- Distance between the researcher and the participants;
- Measurement and quantification;
- Validity, reliability, accuracy and precision; and
- Ethical considerations. (p.47)

Creswell (2005) asserts that quantitative research is an appropriate educational research approach in which the researcher decides what to study, asks specific and narrow questions, collects numeric data from participants, analyses the data using statistics, in an objective and unbiased manner
Survey questionnaires are recognised as an appropriate method of collecting data from a large number of participants when the researcher is able to clearly articulate the information of interest and have appropriate measures of variables (Creswell, 2005; Gall et al, 2003; Krathwohl, 2004; Sarantakos, 2005). Funnell (1996) also reports that survey questionnaires may target one or more groups of people in gaining their opinions and attitudes. Sarantakos (2005), Krathwohl (2004), and Creswell (2005) write that survey questionnaires have a number of advantages including accessing a large number and sometimes geographically dispersed population, gathering of data via an unobtrusive means, reducing bias from the researcher, and minimising time requirements for the respondent and the researcher.

**Research design**

*Participants of the study*

In selecting the participants for this study a number of factors were considered. These included: location (state), industry, and year of completion of the Diploma of Project Management. Prior to sending any questionnaires, the researcher gained approval and permission from the ACPM to access the student database, and also gained permission from the Director to survey the graduates. Upon initial contact with potential candidates, their permission to participate in the study was also sought. These strategies adhere to what Gall et al (2003) advise, that is, that the researcher should have a plan to “establish and maintain positive human relations with the particular institution and the individuals who participate in the research study” (p.81).

The research participants for this study were Diploma of Project Management graduates from the ACPM. The participants were drawn from graduates who completed (graduated) the Diploma course requirements between January 2004 and December 2007. A list of graduates was collated from this period indicating that a
total of 656 graduates had completed and graduated with the Diploma of Project Management qualification. Participants were selected from this timeframe (January 2004 to December 2007) as three years is generally considered to be an indicative timeframe for the application of the skills and competencies from a tertiary education course (Tovey, 1997). This timeframe also provided for the most demographically and industry diverse group of potential research participants.

The research population for the purposes of this study was determined as being the number of Diploma graduates from the ACPM between January 2004 and December 2007, that is, 656 from across Australia. It should also be noted that whilst the researcher was reviewing the ACPM student database, no students from the Northern Territory were identified. Based on this population size, a total number of 103 graduates were selected as the sample size. It should be noted that the student database included graduates from all states and the ACT but no graduates or students from the Northern Territory. The sample was determined as an accurate number of respondents given that the graduates were geographically dispersed across Australia, and that attraction from the project management profession was not known. The numbers of potential respondents was calculated by looking at the total number of graduates in each state and a percentage of approximately sixteen percent (16%) was calculated for the total number of graduates to ensure an equitable spread across each state. This led to a total number of 103 as the sample size for the study.

Questionnaires and development

Design of survey questionnaires is critical to effective research and four issues have been highlighted as being important in this process. These are question wording, categorisation, coding of variables, and general acceptance (Sarantakos, 2005). Each
of these was specifically considered and assessed and piloted by a group of practicing project managers.

Survey questionnaires are the most commonly used method of data collection in the social sciences; and in general, questionnaires are a method of data collection with the use of open and closed questions (Sarantakos, 2005). Consequently questionnaires need to be constructed to include three main areas: a cover letter, instructions and the main body of questions. Sarantakos (2005) further states that the format and structure of questionnaires should be piloted as it serves to test such factors as sequencing, language, suitability and overall design. A questionnaire is also a form that is used in a survey that participants in a study complete and return to the researcher, where the participant chooses answers to questions and supplies basic personal demographic information (Creswell, 2005).

A good questionnaire typically contains items and questions which elicit different types of information from the respondents Gall et al (2003). In this study, a background section was designed to identify and determine the respondents age, and years of experience in project management, industry locale, role in projects and qualifications. Furthermore, Gall et al (2003) advocate a set of guidelines in questionnaire design, which include keeping the questionnaire short, organising questions in an easy manner, including a cover letter and avoiding double-barrelled questions. In the development of the questionnaire for this study, these principles were utilised as guidelines.

Choosing suitable questionnaire response scales is a contentious issue and has been discussed and reviewed by a number of researchers (for example Creswell, 2005; Cohen et al, 2005; Funnell, 1996; Gall et al, 2003; Guba and Lincoln, 2004; Krathwohl, 2004; Sarantakos, 2005; Wadsworth, 1997). The predominant debate is
whether scales represent ordinal or interval level data. Many researchers treat the scales as interval data however, it has been claimed that “in educational research, quantitative investigators often use a combination of both ordinal and interval scales. Of these, interval scales provide the most variation of responses and lend themselves to stronger statistical analysis” (Creswell, 2005; p.168).

Sarantakos (2005) also supports this view and suggests that “Likert scales are widely used as an interval scale particularly as a means for studying attitudes” (p.250). Cohen et al (2005) note that the use of a Likert-type scale offers the researcher a useful tool to build differences, measure attitude, and generate hard data on the respondents. This, they suggest offers the researcher such information as frequency, flexible responses and links between opinion and quantity. Creswell (2005) notes that Likert scales are widely used as means of studying attitudes. The response categories range between two extreme positions divided into five points corresponding to a verbal-numerical value. It was determined that a balanced five-point Likert scale with labelled points which also included a neutral response as the mid-point would be used for this study.

For the purposes of this study, the questionnaire was structured into two sections. Section 1 was designed to collect background information known as demographic data as this allowed for gathering information about the respondents relating to years of experience in project management, other qualifications, professional certification, industry, and their project role. Section 2 focused on project communications and stakeholder engagement utilising six attitude type questions. Each question in this section has a five-point Likert scale ranging from 1 to 5 (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree) to indicate the level of acceptance and attitude of the respondent to that question. At the
end of Section 2, respondents were also provided space to write any comments regarding their experiences and knowledge with respect to project communication that they considered would contribute to the study.

The research questions were developed and originated from a review of project management literature coupled with the researchers’ knowledge and experience in the project management field. As discussed in the literature review, stakeholder and communication management lead to successful projects. Hartley (2003) wrote that distribution of project information is critical to ensure all information is communicated in a timely fashion to all stakeholders throughout the life of the project. A number of other writers and researchers (such as Baccarini and Durrell, 2006; Beard, 2005; Bourne, 2003; Carbone and Gholston, 2004; Kleim and Ludin, 1997; Loo, 2002; Pant and Baroudi, 2006; Turner and Muller, 2005) noted that project soft skills in respect of communication and stakeholder engagement are crucial to project success.

The statements used in section 2 of the questionnaire were developed to reflect the findings of the literature review and from the constructs within the wider project management field with an underlying theme related to project communication planning and stakeholder identification and management. It is also acknowledged that the application and use of the findings of the literature review contributed to the content validity of the research questions. Cohen et al (2005) write that “the instrument must show that it fairly and comprehensively covers the domain or items that it purports to cover” (p.109). Furthermore, Creswell (2005) notes that “the researcher can go to a panel of experts to confirm the content areas that are to be examined” (p.165). The questionnaire was piloted and tested with number of qualified practicing project managers and will be discussed in a subsequent section in this
chapter. Finally, the instrument was designed to address the broader research questions that were outlined in chapter 1.

Three broad themes were identified with six attitudinal question developed as a result of the literature review:

- Project communications;
- The stakeholders; and
- Project management experience and knowledge.

A copy of the research questionnaire can be found at Appendix 1. The questionnaire undertook a pilot strategy and was endorsed by the researcher’s supervisor in respect of purpose, layout and ethical matters.

**Questionnaire pilot**

The questionnaire was piloted with a number of qualified practising project managers from varying backgrounds and experience to ascertain and details concerning wording and industry relevance. It was specifically reviewed for clarity, appearance, question wording, readability, and ease of understanding. Additional input was sought from the practising project managers for the purpose of design. It was held that their knowledge and experience would be valuable to ensure the questionnaire would be appropriate to the target audience in terms of wording and alignment to industry standards. Minor changes were suggested by these project managers relating to the wording of the attitude questions.

**Consistency, validity and reliability considerations**

Questionnaires according to Gall et al (2003) need to meet some standard of validity and reliability. They suggest that in questionnaire type data-collection, the researcher is looking at the group level as well as their individual responses. Furthermore, Gall et al (2003) note that validity can be achieved through evidence
from responses, and they highlight that researchers can also apply relationship between other variables as a valid test of the hypothesis. The researcher, in this case, can use data gathered from the demographic type questions (background questions) and correlate and analyse against the results from the attitudinal questions in the study. Cohen et al (2005) support this position and, they note that content validity can demonstrate validity through an instrument which covers the research question it purports to cover. Cohen et al (2005) further state that validity can be ensured through several factors such as choosing an appropriate time frame, selecting an appropriate methodology, selecting and designing and appropriate instrument to gather the data and a study that adheres to its original hypothesis.

Sarantakos (2005), however, takes another view on validity, advocating that validity in quantitative research is based on the instrument that measures relevance, precision, accuracy and adherence to the research question. This complements assertions from Cohen et al (2005) who state that the instrument (the questionnaire) should measure what it is supposed to measure, and that this can be achieved through application of theoretical validity (reflecting theoretical based on the research problem), face validity (it measures what it’s expected to measure) and content validity. Burns (2000), Gall et al (2003), Cohen et al (2005), and Sarantakos (2005) concur on the key point of internal validity, which refers to internal study checks that ensure the research design, method and approach do not impact on the outcomes of the study. This includes such factors as instrument design, instrument changes during the study, diverse methods of data-collection over the course of the study period, changes in personnel in the study and inconsistent recording techniques.

Issues of validity and reliability were integral in the conduct of the study and to the decisions made for the collection of the data. Two broad approaches to validity
were used in this study: content and construct. Content validity was addressed by piloting the questionnaire with a number of qualified practising project managers from varying backgrounds and experience to ascertain details concerning wording of the research questions and ensure industry relevance. Construct validity was addressed in two ways: through the use of statistical procedures and cross-tabulation of results among the demographic and attitudinal questions, and by applying nonstatistical procedures in examining, discussing, and interpreting the scores, as well as alignment to the research questions.

**Data collection**

Creswell (2005) suggests that electronic surveys provide an easy and quick form of data collection which can be aided by access to websites, emailing prospective respondents, and easier and faster access to the respondents. Krathwohl (2004) suggests that the use of email will allow for effective two-way communication between the respondent and researcher, and offered a number of strengths and weaknesses of email questionnaires.

The strengths of emailing questionnaires include the ability to access a widely geographically dispersed group of respondents, the speed and timeliness of administration, low administration costs, and controlled sampling (Krathwohl, 2004). In addition, technological advances ensure that a survey can have diverse features to ensure easier completion for the respondent and a less likelihood for invalid responses. The potential weaknesses of emailing questionnaires also identified by Krathwohl (2004) include the restriction to only those with email addresses, restriction to only a screen of information at a time, inclusion of the respondent’s email address limits anonymity, and the potential of the email being treated as junk email.
The data collection for this study was done in one phase only. The questionnaire was emailed individually by the researcher directly to the selected potential respondents that have graduated from the Diploma of Project Management course between January 2004 and December 2007. The selection of respondents was undertaken by way of a random sample of ACPM graduates identified from the student database. Two weeks (fourteen days) were given for the graduates to complete and return the surveys. It was expected that it would take no longer than 15 minutes for each participant to complete the questionnaire. Mass emailing to the prospective respondents was avoided in order to maintain the integrity and confidentiality for the potential respondents within the wider respondent group. This proved to be problematic from a confidentiality perspective as the researcher was able to identify the respondent from his/her email address. In spite of this, it meant that only the researcher could identify the potential respondents from his/her email address only.

Invitation to participate

A covering letter (information sheet) was emailed (with the questionnaire) to the chosen potential respondents explaining the background, purpose and use of the data of the study, as well as the researcher’s contact details in case any of the participants sought further clarification about the intention and purpose of the study. Participation in the study was voluntary. The return of the completed questionnaire was accepted as an indication of their consent to participate in this study. The covering letter that accompanied the questionnaire presented details about the focus of the study, participation, ethics, expected benefits, and confidentiality.

The covering letter was designed and based on recommendations that it should introduce the study and the questionnaire to the respondents (Sarantakos, 2005). Moreover, Sarantakos (2005) advises that this would assist to neutralise any doubt or
mistrust the respondents may have about the study, motivate the respondents to participate and must also ensure anonymity, confidentiality and issues related to ethics. A copy of the covering letter for this study can be found at Appendix 1.

**sampling**

The focus of this study was students who had graduated with a Diploma of Project Management from the ACPM. It should be noted that the ACPM conducts project management programs across Australia with locations in Canberra, Melbourne, Sydney and Brisbane. Given the geographically dispersed locations of the respondents, the method of sampling utilised for this study is described as random sampling. Random samples are the most popular and rigorous form of probability sampling from a population (Creswell, 2005). The intent, Creswell (2005) suggests is to choose respondents to be sampled that may be a true representative of the wider population. Sarantakos (2005) also asserts that this type of sampling can be employed when the respondents are spread over large areas (such as various locations across Australia). Additionally, Gall et al (2003) support this position and report that random sampling “can yield research data that can be generalised to a larger population within margins of error that can then be manipulated through statistical formulas” (p.171).

Burns (2000) however, cautions that while random sampling may produce generalised results of the wider population, the results can never be taken as an accurate reflection of the population. Additionally, random sampling allows the researcher the ability of taking a portion of the population and making observations using a smaller group and then generalising the findings to the larger population. Burns (2000) also states that a relevant sample should be representative of the population and if possible not biased in any way. In this study, the sample was based upon equitable representatives from
across Australia, consequently it can be viewed as a snap-shot situated in diverse industries and locations across the country.

In determining the sample size for this study various factors were considered that included an appropriate respondent base for a survey study and the use of the sample size table (developed by Fowler, 1988 cited in Creswell, 2005). Fowler (1988) advises that a researcher must identify that a valid number of respondents is needed for statistical validity, and ensure that is a true representation of the population. Secondly, Creswell (2005), notes that Fowler’s sample size table is often used in survey studies. In applying a very low and acceptable error rate of only 5%, and a sample confidence that the prospective respondents have actually graduated with a Diploma of 95%, this gave an indicative response rate of 75 respondents for the results to be considered statistically valid and reflective of the population. Given these two factors, it was expected that the prospective respondent group for this study would be approximately 100 graduates which would also allow for non-participation from some graduates.

**Research ethics**

Prior to conducting of this study, an ethics application was submitted to the Queensland University of Technology (QUT) University Human Research Ethics Committee (UHREC) and the research project was granted ethical approval under QUT reference number EC00171 (see Appendix 4).

Sarantakos (2005) provides a comprehensive framework identifying nine key ethical issues within research projects including explaining the purpose, risk assessment, confidentiality and privacy, informed consent, data access and ownership, data collection, advice, mental harm, and research approvals through ethics committees.
The purpose of the research was explained clearly to the Director of ACPM who was the researcher’s first point of contact in respect of the study and the individuals within the study. In providing directions and explaining the study an information sheet was provided to the Director of ACPM and the 103 potential respondents as well (see Appendices 1 and 2 respectively). Creswell (2005) suggests that a cover letter should accompany a questionnaire inviting the participants to take part whilst assuring confidentiality and anonymity. Creswell (2005), Gall et al (2003) and Sarantakos (2005) all agree that the cover letter is a key component to the research project and will greatly enhance and assist in providing a positive view of the study as well covering the principles of ethics in research. In relation to the use of study, information provided about the study clearly identified the possibility that the individuals may not necessarily benefit from the research but results would be used to inform the wider project management profession. Further, every person who participated in the study was offered the opportunity to request a copy of the final report on this study.

Consent

Prior to the study being initiated and commenced, informed consent and permission was sought from the Director of ACPM to allow the researcher access to the student database access and to allow graduates from his RTO to take part in this study. A copy of the letter that was sent to and the approval from the Director of the ACPM providing details about the study, and seeking the Director’s approval to conduct the study can be found in Appendices 2 and 3 respectively. Further, participation from the graduates in this study was voluntary. The return of the completed questionnaire was accepted as an indication of their consent to participate in this study. The covering letter (see Appendix 1) that accompanied the
questionnaire presented details about the focus of the study, participation, ethics, expected benefits, and confidentiality.

An assessment risk relating to the organisation and the individuals involved was conducted prior to the commencement of the study and this project was considered to be low risk.

Confidentiality and privacy

Confidentiality and privacy was addressed in that all findings gleaned from the data collected from this study were used for educational purposes and these issues were also discussed in the covering letter that accompanied the questionnaire. All participants were assured that the level of analysis conducted and the reporting of findings would not allow for the identification of individuals. All data gathered for this research was stored in a secure location and will be maintained for a period of five years as required by the QUT Code of Conduct for Research Policy D/2.6. The information sheet provided to the Director of ACPM and the individuals clearly outlined the strict adherence to confidentiality and privacy, and the application and conduct of the study was in accordance with research ethics and practices as mandated by the National Statement on Ethical Conduct in Research Involving Humans. The final word on research ethics should be left to the Australian Vice-Chancellors Committee (as cited by Sarantakos, 2005):

It is a basic assumption of institutions conducting research that their staff members are committed to high standards of professional conduct. Research workers have a duty to ensure that their work enhances the name of the institution and profession to which they belong. (p.17)

Data access and ownership were also considered as ethical issues for this study. In line with UHREC Requirements, all hard copy data were stored in a secure
location. Further, the Director of ACPM and the participants were also informed that all comments and responses were treated as private and anonymous. Information provided on this study also assured the Director of ACPM and the participants that all data and information related to this study would be seen by the Research Supervisor and the researcher. Additionally, to ensure and guarantee anonymity of the respondents all returned emails were deleted once the questionnaire was printed. The names of individual participants were not recorded and were not collected during this research study. Finally, the organisation (the ACPM) and the respondents were informed that the research activity would be undertaken in accordance with QUT’s policy on the conduct of research involving human participation. The framework used for this study was the direction and guidelines set out by the QUT UHREC and the QUT Code of Conduct for Research Policy D/2.6.

Data analysis

The results were statistically analysed to address the specific research questions for the study. The statistical software SPSS version 16.0 was used for this process.

Upon receipt of the completed questionnaires all data collected was entered into SPSS. This resulted in the first step; to clean the data and examine the database for any missing data (Creswell, 2005). All questionnaires that were received contained fully completed answers to all questions in both sections of the questionnaire and no questionnaires were eliminated from the results.

The first stage of analysis involved drawing descriptive statistics in relation to all demographic questions in section 1 of the questionnaire. In analysing the data from this study, the following descriptive and inferential statistics (respectively) were employed: Mean, Median, Mode, and Standard Deviation (where applicable to certain
Descriptive statistics are used to describe and summarise the overall trends and tendencies of a study (Creswell, 2005). Gall et al (2003) report that descriptive statistics are mathematical techniques for organising and summarising a set of numerical data. Alternatively, Creswell (2005) posits that descriptive statistics “indicate general tendencies in the data such as mean, mode and median, and spread of scores with variance, standard deviation and range” (p.181). In determining the mean, median, and mode (called the central tendency), a summary of numbers that represent the distribution of scores across the study was established. Creswell (2005) suggests that the mode can provide meaningful information but the mean does not necessarily tell the whole story of the study. The variability or dispersion (as cited by Gall et al, 2003), the standard deviation and range show the variations of scores across the respondent group. Gall et al (2003) and Krathwohl (2004), suggest that variability allows the researcher to better understand the scores and the differences. This stage of analysis allows for an initial overview of the findings and provides the researcher with an opportunity to identify trends in the data (Creswell, 2005). When this initial data was examined, there were some obvious questions and trends that were further explored by the use of cross-tabulation of results, the details of which are explained in Chapter 4.

The following approach was adopted for the data analysis, as suggested by Creswell (2005), Gall et al (2003), and Sarantakos (2005):

- Checking and coding of the returned questionnaires;
- Entry of data into the a software application;
- Processing and analysis of the data;
- Production of graphs and tables;
- Interpretation of findings; and
Conclusions are drawn from the data and findings.

Finally, all comments collected from the study were also documented verbatim and utilised and documented in the thesis paper as needed with respect to the research question.

Pre-study limitations and weaknesses

In quantitative research potential limitations are generally related to inadequate measures and variables, loss or lack of participants, small sample sizes, and errors in measurement, coding, and data collection (Creswell, 2005). Wadsworth (1997), however, identified a number of other potential limitations as they relate to questionnaires particularly. She suggested that:

Questionnaires frequently are highly irrelevant to people’s real worlds; they are narrow and reduce complexity into a manageable set of questions which may distort the very things the researcher is trying to understand, and there may be a large difference between what the respondents say they do and what they really mean or intend. (p.45)

At the outset of this study the potential problems and limitations of the study are listed against the following areas: the sample size, data collection and analysis, ethics, the questionnaire design, and the participants. This has been represented Table 5 below. Furthermore, in Chapter 5 the eventual weaknesses, limitations, and the methods employed in the study are discussed.
Table 5: Pre-study problems and limitations

<table>
<thead>
<tr>
<th>Problems</th>
<th>Limitations</th>
</tr>
</thead>
</table>
| **Sample size**           | • May be insufficient to be a true representation of the project management graduate population of the ACPM  
• Determining a statistically valid sample size  
• The group of respondents may not necessarily represent the wider project management student population  
• May not necessarily get the best cross-section across the relevant demographics of the group  
• Geographic dispersion of the sample group |
| **Data collection and analysis** | • Validity of the proposed instrument  
• Structure of the instrument  
• Research design  
• Email and return of questionnaires  
• Proficient use of SPSS for data analysis  
• Data coding, entry and processing  
• High level understanding of statistical research may be required  
• Potential for coding errors  
• Potential for bias from respondents  
• Content, structure and language used in the questionnaire  
• Scores may not necessarily have any meaning  
• No real patterns may emerge from the data collected  
• Data collected may be skewed  
• May be difficult to analyse |
| **Ethics**                | • Gaining approval from the Director of the ACPM  
• Gaining consent from prospective respondents to take part in the study  
• Participants’ cultural background may affect responses  
• Email addresses of respondents meant the researcher was able to identify the respondent from his/her email address. |
<table>
<thead>
<tr>
<th>Problems</th>
<th>Limitations</th>
</tr>
</thead>
</table>
| **Questionnaire** | • Question structure and wording  
• Pilot testing prior to conducting the main study |
|          | • High level of preparation time  
• Structure may be difficult to understand by the participants  
• Language used may be too technical  
• Unable to clarify or further probe any comments that are provided  
• No real mechanism for two-way communication between the researcher and the respondent |
| **The participants** | • Sufficient participants take part  
• Willingness of students to participate in the study  
• A cross-section of graduates from across diverse industries |
|          | • Concern for anonymity research ethics, the use of the data, the study findings and the researcher  
• Lack of knowledge, relevance or interest in the study  
• Respondents may not necessarily respond in a valid or correct manner |

While a strength of this study is that the idea of researching the soft skills has not necessarily been explored previously. However, a further limitation could be that there is no prior research data against which to compare this study’s findings and conclusions drawn by the researcher. Finally, Sarantakos (2005) notes that there are a number of concerns associated with a quantitative methodology:

- The hypothesis formed before the study commences can bias the course of the study;
- The research (via the questionnaire) is limited to only what can be accessed through existing methods;
- The researcher’s neutrality and influence on the study’s outcomes;
• The apathy of the respondents to the study;
• The respondents are treated as units or objects, rather than people; and
• The strict research procedure that quantitative research demands restricts
  the options of the researcher. (p.263)

Summary

This chapter provided a detailed explanation of the research design and the
methods employed to enable collection and analysis of data capable of answering the
thesis questions. An overview of the quantitative approach and methodology was
provided along with an explanation of the overall project. In describing and outlining
the quantitative approach to this study an explanation was provided to the
questionnaire development, data collection, sampling, and analysis process. Integral to
this discussion was consideration of the ethical elements of the study as well as the
pre-study limitations and weaknesses. The following chapter provides the data and
results of the study.
Chapter 4

Data and results

Introduction

This purpose of this study was to investigate project management diploma graduates’ attitudes and perceptions of the soft skills in project management. This study investigates the respondents’ education and their professional experience as a means to investigate their understanding of, and attitude toward industry held principles and literature within the project management field.

This study was a quantitative investigation aimed at a key area of project management which is stakeholder and relationship management through communication: the soft skills of a project. The study was undertaken with graduates of the Diploma of Project Management from the Australian College of Project Management (ACPM). The initial section of this results chapter outlines the demographic details of the respondents.

In order to ascertain respondents’ professional understanding and experience in the field of project management, the questionnaire asked for details about: years experience in projects, other qualifications, professional certification, industry employed, and role/s in projects. Further, the questionnaire asked questions that were seeking information from the respondents about their attitudes toward commonly held industry practices and principles of projects, stakeholders and communication. Finally, this section concludes with data and results which have been cross-tabulated with data from both sections one and two as a means to present details about the multiple variable relationships.

In discussing the presentation of results, Creswell (2005) noted that “the researcher should present the specific results utilising both descriptive and inferential
statistical analyses” (p.196). Creswell (2005) further added that this process requires the researcher to explain the results with sentences as well as representing them in tables and graphs. Consequently, the researcher determined that through the use of the statistical analysis software SPSS (version 16), and through a mixture of tables, graphs and sentences to support the data being presented would ensure that the most accurate and relevant set of results obtained from this study are presented.

Response Rate

The survey questionnaire (refer to Appendix 1) was electronically sent individually to 103 graduates of the Diploma of Project Management from the ACPM across Australia. A total of 44 responses were received, providing an overall response rate of 43%. Once all of the questionnaires were received, the data was coded and entered into SPSS. The data was then reviewed for any omissions and/or anomalies. Appreciating the response rate, it is worth noting Creswell (2005) who states that:

Many survey studies in leading educational journals report a response rate of 50% or better, however, this rate will fluctuate depending on proper notification, interest in the study, and the quality of the instrument. (p.367)

In this study the response rate was lower than expected. This issue will be discussed further in chapter 5.

Participant’s background

Section 1 of the questionnaire gathered data about the background of respondents. These details are presented in this section in order to provide an overview of the professional experience of participants of this study.

Years of experience

In summary, the majority of respondents (64%) with project experience fell within the group of one to five years experience. Significantly fourteen percent (n=6)
of respondents identified they had 11 or more years of experience in projects. Based on these details it can be argued that these respondents can be identified as having substantial project experiences. Table 6 shows a summary of years of project experience of the respondents.

### Table 6: Years of project experience

<table>
<thead>
<tr>
<th>Years of project experience grouping</th>
<th>Number of respondents (n=44)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>28</td>
<td>64</td>
</tr>
<tr>
<td>6-10</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>11+</td>
<td>6</td>
<td>13</td>
</tr>
</tbody>
</table>

To further understand the levels of experience within the respondent group a table was developed indicating the descriptive statistics. The mean indicates that on average, respondents have just less than six years experience in projects, however the longest time spent in projects was 23 years, whilst the shortest was one year. The standard deviation of 4.989 shows a significant deviation of years experience across the entire the group of respondents. Table 7 represents the descriptive statistics for the years of experience in projects of the respondents.

### Table 7: Statistics of years of experience

<table>
<thead>
<tr>
<th>Years of experience (n=44)</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of experience</td>
<td>1</td>
<td>23</td>
<td>5.89</td>
<td>4.989</td>
</tr>
</tbody>
</table>

### Tertiary and higher education qualifications

The results showed that the majority of respondents (36%) hold the Diploma of Project Management and another qualification. Further, it should be noted that 23% (n=10) of respondents hold a higher education degree. Also of note was that 9% (n=4) of the respondents hold multiple qualifications. Finally, 11% (n=5) of
respondents have no other qualification other than the Diploma of Project Management which may suggest that completing the course may be work, job or organisation specific. Table 8 below shows the qualification breakdown of the respondents group.

**Table 8: Other qualifications**

<table>
<thead>
<tr>
<th>Other qualifications</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Certificate IV</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Diploma</td>
<td>16</td>
<td>36</td>
</tr>
<tr>
<td>Advanced Diploma</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Higher education degree</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Multiple</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

*Professional project management certification*

The results indicated that a majority of respondents (59%) have also gained certification through a professional project management organisation. Overwhelmingly, 55% of respondents have gained professional project management certification with Australian Institute of Project Management (AIPM), whilst two respondents hold professional project management certification with Project Management Institute (PMI). Significantly, 41% of respondents have not sought or gained professional project management certification. Table 9 below shows the professional project management certification of the respondents.
**Table 9: Professional certification**

<table>
<thead>
<tr>
<th>Professional project management certification</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>18</td>
<td>41</td>
</tr>
<tr>
<td>AIPM</td>
<td>24</td>
<td>55</td>
</tr>
<tr>
<td>PMI</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

*Industry*

The majority of respondents (30%) in this study have, or are currently employed in project roles in the public sector area. The next major group of respondents (21%) were from the Information Technology (IT) sector, whilst 11% respondents were from the Defence sector. Furthermore, of note was that 15% of respondents were from other non-traditional project related industries which included retail, manufacturing, and education. Table 10 below shows the industry types that respondents have engaged in project roles.

**Table 10: Industry type**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>IT</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Defence</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Public sector</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>Construction</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>15</td>
</tr>
</tbody>
</table>

*Role/s in projects*

Significantly, the overwhelming role response to the questionnaire was gleaned from project managers (59%). This is a significant number as the focus of the Diploma of Project Management is on the role and function of the project manager.
Also of note is that 11% of respondents noted they are in program manager roles (which is the domain of the Advanced Diploma of Project Management). Finally, and significantly, 30% of respondents noted they are in project support roles. This result shows that whilst these respondents are in project support roles, they may be either be aspiring to becoming project managers, or at the time of reporting were in a support role, and that they hold that completing the Diploma of Project Management may be a pathway to the role as a project manager. Table 11 shows the project roles of the respondents at the time of responding to the questionnaire.

Table 11: Project role

<table>
<thead>
<tr>
<th>Role</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>26</td>
<td>59</td>
</tr>
<tr>
<td>Program Manager</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Project Support Officer</td>
<td>13</td>
<td>30</td>
</tr>
</tbody>
</table>

Attitudinal Questions

Section 2 of the questionnaire focused on three broad themes based on commonly held principles and practices that were identified and documented in the literature review on project communications and stakeholders. They were used as the basis to formulate six attitude type questions. Each question in this section had a Likert-type scale ranging from 1 to 5, representing:

1 - Strongly disagree;

2 - Disagree;

3 - Neutral;

4 - Agree; and

5 - Strongly Agree.
These numbers were utilised as a means to indicate the respondents’ level of acceptance and attitude to the question. In addition, at the end of section 2 of the questionnaire, space was provided for the respondents to provide any comments regarding their experiences and knowledge with respect to project stakeholders and communications which may not have necessarily been captured in the attitudinal questions in section 2 of the questionnaire.

*Frequency of project communications*

The first item in this section of the questionnaire dealt with the question about: the frequency of project communications in a project is dependent on the stakeholders’ requirements. The results showed that an overall majority of respondents (71%) either Agree or Strongly Agree that the frequency of project communications is dependent on the stakeholders’ requirements. It can also be noted that 14% of respondents either Disagreed or Strongly Disagreed with this statement. The statistics from this question, the mean score of 3.75, and a median score of 4.00 for the entire group supports the notion that a majority of the respondents overwhelmingly support the principle that stakeholders do indeed impinge on frequency of project communications statement. The standard deviation of 0.99 shows a very small deviation of attitude from the mean across the entire respondent group. Finally, it must be stated that 50% of respondents responded they Agreed that project communications is dependent on the stakeholders’ requirements which was the most common (mode) response to this question. Table 12 below shows the frequency and percentage response of the respondents to the frequency of project communications and the requirements of the stakeholders.
Table 12: Responses for the frequency of communications

<table>
<thead>
<tr>
<th>Frequency of project communications and stakeholders requirements</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Neutral</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Agree</td>
<td>22</td>
<td>50</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>9</td>
<td>21</td>
</tr>
</tbody>
</table>

The project stakeholders

The second statement asked in the attitudinal section was: In a project environment the project stakeholders are a key consideration when developing the project communications strategy. The results showed that an overwhelming majority of respondents (87%) either Agree or Strongly Agree that the project stakeholders are a key consideration when developing the project communications strategy. However, only 4% of respondents (n=2) disagreed with the statement. Furthermore, the most common response (mode) to this question was Agree, and this response showed that 55% of respondents ticked this response. Looking at the statistics from this question, the mean score of 4.14 and a median score of 4.00 for the entire group supports the notion that project stakeholders are a key consideration when developing the project communications strategy in a practical project environment. The standard deviation of 0.77 shows a very small deviation of attitude from the mean score across the entire respondent group to this question. It is worth noting that no respondents indicated that they Strongly Disagreed with the statement to this question. Table 13 shows the frequency and percentage response of the respondents to whether in a project environment the project stakeholders are a key consideration when developing the project communications strategy.
Table 13: Responses for the project stakeholders

<table>
<thead>
<tr>
<th>Project stakeholder’s considerations in project communications strategy</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Agree</td>
<td>24</td>
<td>55</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>14</td>
<td>32</td>
</tr>
</tbody>
</table>

Stakeholders and the communication method

The third statement in the attitudinal section of the questionnaire was: The project stakeholders determine the method used in project communications. The results showed that 57% of respondents either Agree or Strongly Agree that project stakeholders determine the method used in project communications. Interestingly, 23% were Neutral on this statement, whilst 20% of respondents Disagreed that project stakeholders determine the method used in project communications. The statistics of this question show that the most common response Agree (39%), with the next highest response being Neutral. The mean and median (3.55 and 4.00) show that by a small majority that the group support the notion that project stakeholders determine the project communications method. The standard deviation of 1.02 shows a quite a deviation of attitude from the mean score across the entire respondent group to this question which resulted in a negative skew of the results. The results also showed that as in question two, no respondents Strongly Disagreed with the statement to this question. Table 14 below shows the frequency and percentage response of the respondents to whether project stakeholders determine the method of project communications.
Table 14: Responses for project stakeholders and communication method

<table>
<thead>
<tr>
<th>Project stakeholder and the method of project communications</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>Neutral</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Agree</td>
<td>17</td>
<td>39</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>8</td>
<td>18</td>
</tr>
</tbody>
</table>

Stakeholders and information needs

The fourth attitudinal statement in the questionnaire was: The stakeholders have significantly varying information and communication needs through the life of a project. The results showed that an overwhelming majority 80% of respondents either Agree or Strongly Agree that stakeholders have significantly varying information and communication needs through the life of a project. Furthermore, it is worth noting that only 4% of respondents Disagreed, whilst 16% (n=7) of respondents were Neutral on the statement. Furthermore, in questions two and three, no respondents Strongly Disagreed with the statement to this question. The statistics from this question show the mean score of 4.09, and a median score of 4.00 for the entire group which would indicate strong support for the principle and practice that stakeholders have significantly varying information and communication needs through the life of a project. The standard deviation of 0.83 shows a very small deviation of attitude from the mean score across the entire respondent group to this question. Table 15 below shows the frequency and percentage response of the respondents to whether project stakeholders needs vary through the life of a project.
Table 15: Responses for stakeholder information needs

<table>
<thead>
<tr>
<th>Stakeholder communications needs</th>
<th>Number of respondents (n=44)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Neutral</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Agree</td>
<td>20</td>
<td>46</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>15</td>
<td>34</td>
</tr>
</tbody>
</table>

Experience and knowledge in communications planning

The fifth attitudinal question was: Project management experience and knowledge assist in developing a project communications strategy. The results showed that an overwhelming majority of 91% of respondents either Agree or Strongly Agree that experience and knowledge do assist in planning for project communications. The results show that this was the second highest rated question with regards to attitude and how the respondents felt with the statement that their experience and knowledge assist in project communications planning. Conversely, only 8% (n=4) of respondents either Disagreed or were Neutral on this statement which again is based industry practices and principles noted earlier in the literature review. The statistics support this view very strongly and shows that the most common response (48%) to this question was Agree followed by Strongly Agree 43%, with a mean of 4.32 and median of 4.00. The standard deviation of 0.71 shows a very small deviation of attitude from the mean score across the entire respondent group to this question. It can be seen that as in questions two, three and four, no respondents Strongly Disagreed with the statement in this question. Table 16 shows the frequency and percentage response of the respondent’s attitude as to whether their experience and knowledge assist in project communications planning.
Table 16: Responses for experience and knowledge in communications planning

<table>
<thead>
<tr>
<th>Experience and knowledge in project communications planning</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Agree</td>
<td>21</td>
<td>48</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>19</td>
<td>43</td>
</tr>
</tbody>
</table>

Experience and knowledge in stakeholder management

The final statement that was asked in the attitudinal section of the questionnaire was: Project management experience and knowledge assist in developing a stakeholder management approach. The responses to this question made it the highest rated question with regard to the attitude of the respondents where all but one respondent (97%) either Agree or Strongly Agree that experience and knowledge do indeed and assist in developing a stakeholder management approach for the project. The one respondent who did not Agree or Strongly Agree was Neutral on this question. This question also produced the highest attitude with 57% of respondents responding they Strongly Agree, followed by Agree with 41% that experience and knowledge assist in developing a stakeholder management approach for the project. The statistics support this view very strongly which shows that the most common response, with a mean of 4.55 and a median of 5.00. The standard deviation of 0.55 is the smallest of the six attitudinal questions, and again shows a very small deviation of attitude from the mean score across the entire respondent group to this question. Finally, it is also worth highlighting that no respondents Strongly Disagreed or Disagreed with the statement in this question. Table 17 shows the frequency and percentage response of the respondent’s attitude as to whether their
experience and knowledge assist in the stakeholder management approach of a project.

**Table 17: Responses for experience and knowledge in stakeholder management**

<table>
<thead>
<tr>
<th>Experience and knowledge in stakeholder management approach</th>
<th>Number of respondents (n=44)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Agree</td>
<td>18</td>
<td>41</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>25</td>
<td>57</td>
</tr>
</tbody>
</table>

**Multiple variable relationships**

This final section of data and results analysis, summarises and describes various relationships between a combination of variables from both sections and 1 and 2 of the questionnaire. The data gathered from the study has allowed the researcher to use a number of approaches to further investigate and determine details pertaining to the outcomes of this study. These approaches include: Cross-tabulations, and Comparing the Means, Modes, and Medians.

In SPSS, cross-tabulations are used to describe the relationship between two or more category variables. In the SPSS manual (2007), it is noted that the size of the cross-tabulations table is dependent on value of each of the variables, with each cell in the table representing a unique combination. The Comparing Means routine in SPSS is used to display descriptive statistics such as means, standard deviations, and median for subgroups within the entire respondent group. SPSS (2007) suggest that this is the first step toward answering whether a statistical significance between a number of variables.
Years of experience and frequency of project communications

This section looks at the data of the grouped years of experience and the first question asked of the respondents in Section 2 of the questionnaire: the frequency of project communications in a project is dependent on the stakeholder’s requirements. The statistical results showed that highest mean of 4.0, for this question from the group of respondents with 11 or more years of experience (14%) and the rest of the respondents showed a mean of 3.71. However, standard deviations of 0.894 and 0.976 for those respondents with one to five and 11 or more years experience (respectively) shows a very small deviation of attitude from the mean score for the respondents in these two groups. Further, the standard deviation of 1.16 for those respondents with six to ten years experience showed quite a disparity of responses for ten respondents (22%). Table 18 below shows a comparison of the mean, standard deviation, and median.

Table 18: Statistics for years of experience and frequency of project communications

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>28</td>
<td>3.71</td>
<td>0.976</td>
<td>4.00</td>
</tr>
<tr>
<td>6-10</td>
<td>10</td>
<td>3.71</td>
<td>1.16</td>
<td>4.00</td>
</tr>
<tr>
<td>11+</td>
<td>6</td>
<td>4.0</td>
<td>0.894</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.75</td>
<td>0.991</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Taking into account how the different groups responded to this question the most common response was Agree from those respondents with one to five years experience (61%). Moreover, of those respondents with 11 or more year’s experience, two strongly agreed with the statement, another two agreed, whilst the other two respondents were neutral on this statement. One respondent strongly disagreed with this statement. This person was from the group of respondents with one to five years
experience. The negative Kurtosis is shown and reflected in a high majority of responses to this question being firmly around either Agree or Strongly Agree. Table 19 below shows the cross tabulation of the respondents’ attitude and whether the frequency of project communications in a project is dependent on the stakeholder’s requirements and their years of experience.

**Table 19: Cross tabulation of responses for years of experience and frequency of project communications**

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5 N %</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>6 - 10 N %</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>11 + N %</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Totals %</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>22</td>
<td>9</td>
<td>44</td>
</tr>
</tbody>
</table>

*Years of experience and the stakeholders*

This cross-tabulation reviewed the grouped years of experience and the second question raised in the attitudinal section of the questionnaire: in a project environment the project stakeholders are a key consideration when developing the project communications strategy. The results indicated that the highest mean of 4.33 for this question from the group of respondents with 11 or more years of experience (14%). The data also showed that for the other two groups (one to five and six to ten years experience) their means of 4.11 and 4.13 respectively were very similar. The standard deviations on the other hand show a similar picture. The lowest standard deviation (0.786) for this question was from the group of respondents with one to five years,
and the highest of 0.816 for the those respondents with 11 or more years experience. This result would suggest a very small deviation of attitude from the mean score for the all respondents and a very broad understanding and application in the development of a project communications strategy. Table 20 below shows a comparison of the mean, standard deviation, and median.

**Table 20: Statistics for years of experience and the stakeholders**

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>28</td>
<td>4.11</td>
<td>0.786</td>
<td>4.00</td>
</tr>
<tr>
<td>6-10</td>
<td>10</td>
<td>4.10</td>
<td>0.738</td>
<td>4.00</td>
</tr>
<tr>
<td>11+</td>
<td>6</td>
<td>4.33</td>
<td>0.816</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.14</td>
<td>0.765</td>
<td>4.00</td>
</tr>
</tbody>
</table>

As the results showed the most common response was *Agree* from those respondents with one to five years experience (61%). Also, of those respondents with 11 or more year’s experience, three strongly agreed with the statement, another two respondents agreed with the statement. For the group of respondents with six to ten years experience, (23%) were firmly centred between Agree and Strongly Agree. Furthermore, it should be noted that no respondent strongly disagreed with the statement. The negative Kurtosis is shown and reflected in a high majority of responses to this question being firmly around either Agree or Strongly Agree. Table 21 below shows the cross tabulation of the respondents’ attitude as to whether in a project environment the project stakeholders are a key consideration when developing the project communications strategy and their years of experience.
### Table 21: Cross tabulation of responses for years of experience and the stakeholders

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5</td>
<td>N 2</td>
<td>1</td>
<td>17</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>% 7</td>
<td>3</td>
<td>61</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>6 - 10</td>
<td>N 0</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>% 0</td>
<td>20</td>
<td>50</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>11 +</td>
<td>N 0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% 0</td>
<td>16</td>
<td>34</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>N 2</td>
<td>4</td>
<td>24</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>% 4</td>
<td>9</td>
<td>55</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

**Years of experience and the communications method**

This section of cross-tabulations reviewed the grouped years of experience and the third question asked of the respondents in Section 2: the project stakeholders determine the method used in project communications is interesting. The results showed that highest mean of 4.20, for this question from the group of respondents with between six to ten years of experience (23%). The data also showed that for the other two groups (one to five and 11 or more years of project experience) their means of 3.39 and 3.17 respectively were very similar. The standard deviations differ. The lowest standard deviation when comparing the various groups of respondents (0.753) for this question was from the group of respondents with 11 or more years of experience, and the highest of 1.033 was for the those respondents with between six to ten years experience. This result would suggest a deviation of attitude from the mean scores for the all the respondents and a potentially broad or loose understanding and application in determining an appropriate communications methods for project stakeholders.
On the other hand, the medians show a disparity of results, with the highest being 4.50 for the group of respondents with between six to ten years of experience, and only 3.00 for the group of respondents with 11 or more years of experience. This would suggest and be shown when comparing the responses strong attitudes centred on Neutral and Agree for a majority of the respondents. Table 22 below shows a comparison of the means, standard deviations, and medians.

*Table 22: Statistics for years of experience and communications method*

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>28</td>
<td>3.39</td>
<td>0.994</td>
<td>4.00</td>
</tr>
<tr>
<td>6-10</td>
<td>10</td>
<td>4.20</td>
<td>1.033</td>
<td>4.50</td>
</tr>
<tr>
<td>11+</td>
<td>6</td>
<td>3.17</td>
<td>0.753</td>
<td>3.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.55</td>
<td>1.022</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The data showed that the most common response was Strongly Agree from those respondents with six to ten years experience (50%). Moreover, of those respondents with 11 or more year’s experience, no respondents strongly agreed with the statement, whilst two agreed to the statement, a further three were neutral, with one person disagreeing with the statement. For the group of respondents with six to ten years experience (23%), were firmly centred between Agree and Strongly Agree. Conversely for group of respondents with one to five years experience (64%), their responses were evenly spread from Disagree to Strongly Agree. Furthermore, no respondents strongly disagreed with the statement. This would suggest a negative Kurtosis which in a high majority of responses across the three respondent groups to this question being firmly around either Neutral or Agree. Table 23 below shows the cross tabulation between the respondents’ attitude as to whether the project stakeholders determine the method used in project communications and their years of experience.
Table 23: Cross tabulation of responses for years of experience and communications method

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5</td>
<td>7</td>
<td>6</td>
<td>12</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>%</td>
<td>25</td>
<td>21</td>
<td>43</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>6 - 10</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>%</td>
<td>10</td>
<td>10</td>
<td>30</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>11 +</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>%</td>
<td>17</td>
<td>50</td>
<td>33</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>9</td>
<td>10</td>
<td>17</td>
<td>8</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>20</td>
<td>23</td>
<td>39</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

Years of experience and stakeholder information needs

The data and results provided in this section show the grouped years of experience and the fourth question put to the respondents in Section 2 of the questionnaire: the stakeholders have significantly varying information and communication needs through the life of a project. The data results showed that highest mean of 4.70, for this question from the group of respondents with between six to ten years of experience (23%). The data also showed that for the other two groups (one to five and 11 or more years of project experience) their means of 4.11 and 3.00 respectively are different. These results would suggest that for the group of respondents with six to ten years of experience their responses were centred on Agree and Strongly Agree, whilst at the other end of the range, the group of respondents with 11 or more years of experience their attitude seemed to be very much Neutral on this statement. On the other hand, the medians also show a similar pattern of results, with the highest being 5.00 for the group of respondents with between six and ten years of experience, 4.00 for the group of respondents with between one and five
years of experience, and only 3.00 for the group of respondents with 11 or more years of experience. This suggests that when comparing the responses strong attitudes centred on Agree for a majority of the respondents.

The standard deviations trends with the three standard deviations for all three groups were similar. The lowest standard deviation when comparing the various groups of respondents (0.629) for this question was from the group of respondents with between one and five years of experience, and the highest of 0.894 was for the those respondents with 11 or more years of experience. This suggests a very small deviation of attitude from the mean score for the all the respondents and a very high level of understanding and application in the understanding of the varying requirements of stakeholders throughout the life of project. Table 24 below shows a comparison of the means, standard deviations, and medians.

**Table 24: Statistics for years of experience and stakeholder information needs**

<table>
<thead>
<tr>
<th>Years of experience (grouped )</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>28</td>
<td>4.11</td>
<td>0.629</td>
<td>4.00</td>
</tr>
<tr>
<td>6-10</td>
<td>10</td>
<td>4.70</td>
<td>0.675</td>
<td>5.00</td>
</tr>
<tr>
<td>11+</td>
<td>6</td>
<td>3.00</td>
<td>0.894</td>
<td>3.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.09</td>
<td>0.893</td>
<td>4.00</td>
</tr>
</tbody>
</table>

In analysing how the different groups responded, the results showed that the most common response was Strongly Agree from those respondents with six to ten years experience (80%). It is worth noting that of those respondents with 11 or more year’s experience, no respondents strongly agreed with the statement, whilst two respondents agreed to the statement, a further two were Neutral, and the other two disagreeing with the statement. The group of respondents with one to five years experience (23%), were firmly centred on Neutral (61%). Further it can be highlighted
that no respondents strongly disagreed with the statement. Table 25 below shows the cross tabulation of the respondents’ attitude and whether the stakeholders have significantly varying information and communication needs through the life of a project and their years of experience.

\textit{Table 25: Cross tabulation of responses for years of experience and stakeholder information needs}

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>14</td>
<td>61</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>6 - 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>10</td>
<td>10</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>11 +</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>33.3</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Totals</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>33.3</td>
<td>16</td>
<td>46</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Totals</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textit{Years of experience and communications planning}

The results in this section examine at the grouped years of experience and the fifth attitudinal question: project management experience and knowledge assist in developing a project communications strategy. The statistical results showed that the means for group of respondents with between one and five, and 11 or more years of experience (4.18 and 4.17) were almost identical, showing a strong attitude around the Agree and Strongly Agree. For those respondents with six to ten years of experience their mean of 4.80 showed their attitude centred very much on Strongly Agree for this statement. On the other hand, the medians also show a similar pattern of results, with the highest being 5.00 for the group of respondents with between six and ten years of experience, and 4.00 for the group of respondents with between one and five years of
experience, and 11 or more years of experience. This would suggest and be shown when comparing the responses of strong positive attitudes centred on Agree and Strongly Agree for a majority of the respondents.

The standard deviations show that with the three standard deviations for all three groups being very similar. The lowest standard deviation when comparing the various groups of respondents (0.422) for this question was from the group of respondents with between 6 and 10 years of experience, with the standard deviations for the group of respondents with between one and five years of experience, and 11 or more years of experience of 0.723 and 0.753 respectively, being very similar. This result may indicate a very small deviation of attitude from the mean score for the all three respondent groups and a very high level of acceptance and awareness that their experience and knowledge would indeed assist them in developing a project communications strategy. Table 26 below shows a comparison of the means, standard deviations, and medians.

Table 26: Statistics for years of experience and knowledge in developing a communications strategy

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>28</td>
<td>4.18</td>
<td>0.723</td>
<td>4.00</td>
</tr>
<tr>
<td>6-10</td>
<td>10</td>
<td>4.80</td>
<td>0.422</td>
<td>5.00</td>
</tr>
<tr>
<td>11+</td>
<td>6</td>
<td>4.17</td>
<td>0.753</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.32</td>
<td>0.708</td>
<td>4.00</td>
</tr>
</tbody>
</table>

From analysing how the three groups responded to this question the most common response was Strongly Agree from those respondents with six to ten years experience (80%). It can also be noted that of those respondents with 11 or more years’ experience, two respondents strongly agreed with the statement, whilst another three agreed with the statement. The group of respondents with one to five years
experience (23%), were firmly centred on Agree (57%), whilst another 32% (n=9) strongly agreed with the statement. Finally, it should be noted that no respondents strongly disagreed with the statement, and only one respondent disagreed with statement. Table 27 below shows the cross tabulation of the respondents’ attitude as to whether their experience and knowledge assist in developing the project communications strategy and their years of experience.

**Table 27: Cross tabulation of responses for years of experience and experience and knowledge in developing a communications strategy**

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>7</td>
<td>57</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>6 - 10</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>20</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>11 +</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>17</td>
<td>3</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>17</td>
<td>50</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Totals</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>20</td>
<td>15</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>7</td>
<td>48</td>
<td></td>
<td>43</td>
</tr>
</tbody>
</table>

**Years of experience and stakeholder management approach**

The results in this section consider the grouped years of experience and the final question in Section 2 of the questionnaire: project management experience and knowledge assist in developing a stakeholder management approach. The means of 4.50 and 4.70 for all three groups of respondents showed that 4.50 was identical for both two groups of respondents with one to five and 11 or more years of experience respectively. This result reflects a very positive attitude centred on Agree and Strongly Agree from the respondents that their experience and knowledge may indeed assist them when developing a stakeholder management approach for a project.
Similarly, the medians of 4.50 and 5.00 shows a similar pattern of results, with the highest being 5.00 for the group of respondents with between six and ten years of experience, and 11 or more years of experience.

Furthermore, the standard deviations of the three standard deviations for all three groups are similar. The lowest standard deviation when comparing the various groups of respondents (0.483) for this question was from the group of respondents with between six and ten years of experience, whilst the highest 0.837 for the group of respondents with 11 or more years of experience. This result suggests a very small deviation of attitude from the mean score within each of the three respondent groups and a very high level of awareness and acceptance that their experience and knowledge would indeed assist them in developing a stakeholder management approach for a project. Table 28 below shows a comparison of the means, standard deviations, and medians across the three respondent groups.

Table 28: Statistics for years of experience and knowledge in developing a stakeholder management approach

<table>
<thead>
<tr>
<th>Years of experience (grouped )</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>28</td>
<td>4.50</td>
<td>0.509</td>
<td>4.50</td>
</tr>
<tr>
<td>6-10</td>
<td>10</td>
<td>4.70</td>
<td>0.483</td>
<td>5.00</td>
</tr>
<tr>
<td>11+</td>
<td>6</td>
<td>4.50</td>
<td>0.837</td>
<td>5.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.32</td>
<td>0.548</td>
<td>5.00</td>
</tr>
</tbody>
</table>

The data further demonstrated that no respondents disagreed or strongly disagreed with the statement. The most common response was Strongly Agree from those respondents with six to ten years experience (70%) those respondents with 11 or more year experience showed a similar attitude with 67% strongly agreeing with the statement. The group of respondents’ with one to five years experience were evenly split between Agree (50%) and Strongly Agree. Table 29 below shows the cross
tabulation of the respondents’ attitude and whether their experience and knowledge assist in developing a stakeholder management approach and their years of experience.

**Table 29: Cross tabulation of responses for years of experience and experience and knowledge in stakeholder management approach**

<table>
<thead>
<tr>
<th>Years of experience (grouped)</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5</td>
<td>N 0</td>
<td>14</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>% 0</td>
<td>50</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>6 - 10</td>
<td>N 0</td>
<td>0</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>% 0</td>
<td>30</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>11 +</td>
<td>N 1</td>
<td>1</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>% 17</td>
<td>16</td>
<td>67</td>
<td>100</td>
</tr>
<tr>
<td>Totals</td>
<td>N 1</td>
<td>18</td>
<td>25</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>% 2</td>
<td>41</td>
<td>57</td>
<td>100</td>
</tr>
</tbody>
</table>

*Other qualifications and the frequency of project communications*

The cross-tabulation results in this section analyse whether the respondents hold another qualification (other than the Diploma of Project Management) and the first attitudinal question posed in the questionnaire: the frequency of project communications in a project is dependent on the stakeholder’s requirements. The data results shows the means for both groups: those that do hold another qualification (88%), and those that do not (12%) of 3.79 and 3.40 respectively were very similar indicating an attitude centred on Neutral and Agree. Similarly, the median of 4.00 for both groups of respondents also show a similar pattern of results.

Furthermore, the standard deviations indicate that the standard deviation of 1.005 for those respondents with another qualification demonstrate a spread of responses from the mean. Whilst those respondents without another qualification
determined a standard deviation of 0.894; this is a low spread of responses from the mean. This result suggests a low deviation of attitude from the mean score within both the respective groups and could suggest that whether they hold another qualification or not, may not necessarily assist in their understanding of whether the frequency of project communications in a project is dependent on the stakeholder’s requirements. Table 30 below shows a comparison of the means, standard deviations, and medians across the two respondent groups.

Table 30: Statistics for other qualifications and frequency of project communications

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>3.79</td>
<td>1.005</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>3.40</td>
<td>0.894</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.75</td>
<td>0.991</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The data also indicated that one respondent strongly disagreed with the statement. The most common response was Agree from 19 respondents that did have another qualification. In the group of respondents with no other qualification the most common response was also Agree (n=3). The result for the respondents that do have another qualification showed a strong positive Kurtosis which is shown and reflected in the responses for this group showing a flat symmetrical picture of their attitude to this question across all five possible responses. Table 31 below shows the cross tabulation of the respondents’ attitude as to whether the frequency of project communications in a project and whether they hold another qualification.
Table 31: Cross tabulation of responses for other qualifications and the frequency of project communications

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>N</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>3</td>
<td>10</td>
<td>15</td>
<td>49</td>
<td>23</td>
</tr>
<tr>
<td>No</td>
<td>N</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>N</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>3</td>
<td>11</td>
<td>16</td>
<td>50</td>
<td>21</td>
</tr>
</tbody>
</table>

Other qualifications and the stakeholders

Examining the data of whether the respondents hold another qualification and the second question posed in section two: in a project environment the project stakeholders are a key consideration when developing the project communications strategy. The results show that the means for both groups of respondents, those that do hold another qualification (88%), and those that do not (12%) of 4.15 and 4.00 respectively were very similar indicating a strong attitude centred on Agree and Strongly Agree to this question in the study. Similarly, the median of 4.00 for both groups of respondents also shows a similar pattern of results.

Furthermore, the standard deviations show a standard deviation of 0.812 for those respondents with another qualification indicating a small spread of responses from the mean for this group of respondents. However, the respondents without another qualification the standard deviation of 0.000 showed no spread of responses from the mean, this could be attributed to the fact that there were only five people in this study that did not have another qualification. This result would suggest similar thinking and attitude across the entire respondent group and could suggest that if they hold another qualification or not may actually assist in their understanding of the
stakeholders communication needs in a project environment. Table 32 below shows a comparison of the means, standard deviations, and medians across the two respondent groups.

*Table 32: Statistics for other qualifications and the stakeholders*

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>4.15</td>
<td>0.812</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>4.00</td>
<td>0.000</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.75</td>
<td>0.765</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Appraising how the two groups responded to this question it emerged that no respondent strongly disagreed with the statement. The most common response was Agree from 19 respondents (49%) that did have another qualification. Also, five respondents with no other qualification all agreed with the statement as noted above in a standard deviation of zero. The result for the respondents that do have another qualification showed a strong negative Kurtosis which is reflected with the responses for this group being skewed toward Agree and Strongly Agree. Table 33 below shows the cross tabulation of the respondents’ attitude and whether in a project environment the project stakeholders are a key consideration when developing the project communications strategy.

*Table 33: Cross tabulation of responses for other qualifications and the stakeholders*

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>10</td>
<td>15</td>
<td>49</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>49</td>
<td>23</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>2</td>
<td>4</td>
<td>24</td>
<td>14</td>
<td>44</td>
</tr>
</tbody>
</table>
Other qualifications and the communications method

The data analysis in this section is related to whether the respondents hold another qualification and the third attitudinal question raised in the questionnaire: the project stakeholders determine the method used in project communications. Results of the means, modes and medians between the respondents that do have another qualification (88%) and those that do not (12%) indicated that the means for both groups of respondents of 3.54 and 3.60 respectively were very similar indicating a strong attitude centred on Neutral and Agree to this question in the study. Similarly, the median of 4.00 for both groups of respondents also shows a similar pattern of results.

Furthermore, the standard deviation of 1.072 for those respondents with another qualification indicates varying views of responses from the mean for this group of respondents. However, the respondents without another qualification standard deviation of 0.548 showed a small spread of responses from the mean. This result suggests varying views and attitudes across the entire respondent group and could suggest that whether they hold another qualification or not may not actually assist them in determining stakeholder communication methods in a project environment. Table 34 below shows a comparison of the means, standard deviations, and medians across the two respondent groups.

Table 34: Statistics for other qualifications and the communications methods

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>3.54</td>
<td>1.072</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>3.60</td>
<td>0.548</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.55</td>
<td>1.022</td>
<td>4.00</td>
</tr>
</tbody>
</table>
Considering how the two groups responded to this question the results highlighted the fact that no respondent strongly disagreed with the statement. The most common response was Agree from 14 respondents (36%) that did have another qualification. Further, it can also be noted that the responses to this question from these respondents were split across all four responses as shown below in Table 34. This result is reflected in a positive Kurtosis with their responses for this group being almost identical across the four responses. Moreover, the responses for the five respondents with no other qualification were split between Neutral (40%), and Agree (60%). Table 35 below shows the cross tabulation of the respondents’ attitude and whether the project stakeholders determine the method used in project communications.

Table 35: Cross tabulation of responses for other qualifications and the communications methods

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>N 9</td>
<td>N 8</td>
<td>N 14</td>
<td>N 8</td>
<td>39</td>
</tr>
<tr>
<td>% 23</td>
<td>% 20</td>
<td>% 36</td>
<td>% 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>N 0</td>
<td>N 2</td>
<td>N 3</td>
<td>N 0</td>
<td>5</td>
</tr>
<tr>
<td>% 0</td>
<td>% 40</td>
<td>% 60</td>
<td>% 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>N 9</td>
<td>N 10</td>
<td>N 17</td>
<td>N 8</td>
<td>44</td>
</tr>
<tr>
<td>% 20</td>
<td>% 23</td>
<td>% 39</td>
<td>% 18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other qualification and stakeholder information needs

This section considers the results of whether the respondents hold another qualification and the fourth question asked in section two: the stakeholders have significantly varying information and communication needs through the life of a project produced some interesting details. The statistical results between the respondents that do have another qualification and those that do not showed that the means for both groups of respondents, those that do hold another qualification (88%),
and those that do not (12%) of 4.13 and 3.80 respectively were similar indicating a strong attitude centred on Agree to this question in the study. Similarly, the median of 4.00 for both groups of respondents is also in line and supports the results of means comparison.

However, the standard deviations present conflicting details with a standard deviation of 0.801 for those respondents with another qualification indicating a small variance from the mean of attitudes and responses for this group of respondents. However, the respondents without another qualification produced a standard deviation of 1.095 which showed a small spread of responses from the mean. This result could suggest varying views and attitudes across this respondent group, however, this could also be attributed to the fact that only five people in this study did not have another qualification. These results may also suggest a strong attitude to this statement centred on Agree across the entire respondent group. Table 36 below shows a comparison of the means, standard deviations, and medians across the two respondent groups.

**Table 36: Statistics for other qualification and stakeholder information needs**

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>4.13</td>
<td>0.801</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>3.80</td>
<td>1.095</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.04</td>
<td>0.830</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The data also showed that no respondent strongly disagreed with the statement. Furthermore, two respondents disagreed with the statement. The most common response to this question was Agree from 17 respondents (36%) that did have another qualification. Further, the responses to this question from these respondents also split across Neutral and Strongly Agree as shown below in Table 38. This result is reflected in a negative Kurtosis with the responses for this group being
firmly centred toward Agree and Strongly Agree. Moreover, the responses for the other four respondents with no other qualification ranged from Agree (60%), and Strongly Agree (20%) however, again not much could be drawn from this fact as there were only five respondents that did not have another qualification. Table 37 below shows the cross tabulation of the respondents’ attitude as to whether the stakeholders have significantly varying information and communication needs through the life of a project.

Table 37: Cross tabulation of responses for other qualifications and stakeholder information needs

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>7</td>
<td>17</td>
<td>14</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>2%</td>
<td>2%</td>
<td>44%</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>0%</td>
<td>60%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>2</td>
<td>7</td>
<td>20</td>
<td>15</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>5%</td>
<td>16%</td>
<td>45%</td>
<td>34%</td>
<td></td>
</tr>
</tbody>
</table>

Other qualification and communications planning

This section of cross-tabulations examines the respondents that hold another qualification and whether project management experience and knowledge assists in developing a project communications strategy which was the fifth question posed in section two. The results of the means, modes and medians between the respondents that do have another qualification (88%), and those do not (12%) showed that the means for both groups of respondents 4.33 and 4.20 respectively were very similar indicating a strong attitude centred on Agree and Strongly Agree to this question in the study. Similarly, the median of 4.00 for both groups of respondents is also in line and supports the results of means comparison.
However, the standard deviation of 0.737 for those respondents with another qualification indicates a small variance from the mean of attitudes and responses for this group of respondents. For the respondents without another qualification the standard deviation of 0.447 showed a very small spread of responses from the mean. This result could suggest very similar views and attitudes across the entire respondent group. However, not much could be drawn from the data for the respondents without another qualification as there were only five people in this study that didn’t have another qualification. Table 38 below shows a comparison of the means, standard deviations, and medians across the two respondent groups.

Table 38: Statistics for other qualifications and project management experience and knowledge in developing a project communications strategy

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>4.33</td>
<td>0.737</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>4.20</td>
<td>0.447</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.32</td>
<td>0.708</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The results to this question also showed that no respondent strongly disagreed with the statement. Furthermore, one respondent (from the group of respondents with another qualification) disagreed with the statement. The most common response to this question was Strongly Agree from 18 respondents (36%) that did have another qualification. The responses to this question from these respondents were across Neutral and Strongly Agree as shown below in Table 38. This result is reflected in a negative Kurtosis with the responses for this group being firmly centred toward Agree and Strongly Agree. It can also be observed that the responses for those respondents without another qualification four respondents (80%) Agreed with the statement, and one Strongly Agreed. Table 39 below shows the cross tabulation of the respondent’s
attitude as to whether project management experience and knowledge assists in developing a project communications strategy.

**Table 39: Cross tabulation of responses for other qualifications and project management experience and knowledge in developing a project communications strategy**

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>3</td>
<td>17</td>
<td>18</td>
<td>39</td>
</tr>
<tr>
<td>%</td>
<td>2</td>
<td>7</td>
<td>45</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>0</td>
<td>80</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>19</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>2</td>
<td>7</td>
<td>48</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

Other qualifications and stakeholder management approach

The data in this section considers whether the respondents hold another qualification and the final question asked in section two: project management experience and knowledge assists in developing a stakeholder management approach produced valuable information. The statistical data and results between the respondents that do have another qualification (88%), and those that do not hold another qualification (12%) indicated that the means for both groups of 4.56 and 4.40 respectively were very similar indicating a leaning toward Strongly Agree to this question. Similarly, the medians of 5.00 and 4.00 for both groups of respondents respectively are also in line and support the results of the means comparison.

Furthermore, the standard deviations of 0.552 and 0.548 for both groups of respondents respectively indicate a small variance from the mean of attitudes and responses for across the entire group of respondents in the study. This result shows very similar views and attitudes across the entire respondent group. Table 40 below
shows a comparison of the means, standard deviations, and medians across the two respondent groups.

*Table 40: Statistics for other qualification and project management experience and knowledge in developing a stakeholder management approach*

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>4.56</td>
<td>0.552</td>
<td>5.00</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>4.40</td>
<td>0.548</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.55</td>
<td>0.548</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Considering how the two groups responded to this question, it highlighted that no respondents strongly disagreed or disagreed with the statement. Furthermore, one respondent (from the group of respondents with another qualification) was Neutral on the statement. The most common response to this question was Strongly Agree from 23 respondents (59%) that did have another qualification. The remainder of responses to this question from these respondents was Agree as shown below in Table 40. This result is reflected in quite a strong negative Kurtosis with the responses for this group being firmly centred toward Agree and Strongly Agree. It can also be noted that the responses for those respondents without another qualification were split across Agree (60%) and Strongly Agree (40%). Table 41 below shows the cross tabulation of the respondents’ attitude as to whether project management experience and knowledge assists in developing a stakeholder management approach.
**Table 41: Cross tabulation of responses for other qualifications and project management experience and knowledge in developing a stakeholder management approach**

<table>
<thead>
<tr>
<th>Other qualification</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>15</td>
<td>23</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>39</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>60</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>21</td>
<td>19</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>41</td>
<td>57</td>
<td></td>
</tr>
</tbody>
</table>

**Professional certification and frequency of project communications**

The data in this section cross-tabulates the respondents that have a professional certification from a project management organisation and the first attitudinal question posed in section two of the questionnaire: the frequency of project communications in a project is dependent on the stakeholder’s requirements. The results showed that the means for the groups that have a professional certification (59%), and those that do not (41%) of 3.81 and 3.67 respectively, were very similar indicating an attitude centred between Neutral and Agree. Similarly, the median of 4.00 for both groups of respondents also shows a similar pattern of results.

Furthermore, the standard deviations produces similar data with the standard deviations of 1.059 and 0.907 for both groups of respondents respectively, indicating some level of variance from the mean of attitudes and responses across the entire group of respondents in the study. This result shows a deviation of attitude from the mean score within both the respective groups and could suggest that whether they have a professional certification or not may not necessarily assist in their understanding of whether the frequency of project communications in a project is
dependent on the stakeholder’s requirements. Table 42 below shows a comparison of
the means, standard deviations, and medians across the two respondent groups.

*Table 42: Statistics for professional certification and frequency of project
communications*

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>3.81</td>
<td>1.059</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>3.67</td>
<td>0.907</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.75</td>
<td>0.991</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Investigating how the two groups responded to this question, one respondent
(from the group of respondents without a professional certification) strongly disagreed
with the statement. The most common response was Agree from 14 respondents
(54%) that did have a professional certification. Further, it should also be noted the
responses to this question from both groups of respondents were split across all four
responses as shown below in Table 43. This result is reflected in a positive Kurtosis
with their responses for this group being almost identical with a flat type of outcome
across the four responses. Table 43 below shows the cross tabulation of the
respondents’ attitude and whether the project stakeholders determine the method used
in project communications.

*Table 43: Cross tabulation of responses for professional certification and frequency
of project communications*

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>4</td>
<td>11</td>
<td>8</td>
<td>54</td>
<td>23</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>%</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>0</td>
<td>11</td>
<td>28</td>
<td>44</td>
<td>17</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>N</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>2</td>
<td>11</td>
<td>16</td>
<td>50</td>
<td>21</td>
</tr>
</tbody>
</table>
This section analyses the data of respondents that have a professional certification from a project management organisation and the second question posed in section two: in a project environment the project stakeholders are a key consideration when developing the project communications strategy, showed quite similar results. The statistical results indicated that the means for the groups: those that do have a professional certification (59%), and those that do not (41%) of 4.15 and 4.11 respectively were close to being identical, indicating an attitude strongly centred on Agree for all of the respondents in this study. Furthermore, the standard deviations show a similar picture with the standard deviations of 0.881 and 0.583 for both groups of respondents respectively indicating a small level of variance from the mean of attitudes and responses across the entire group of respondents in the study. This result could suggest that whether a respondent has a professional certification or not may actually assist in their understanding of whether project stakeholders are a key consideration when developing a project communications strategy.

Table 44 below shows a comparison of the means, standard deviations, and medians across the two respondent groups.

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>4.15</td>
<td>0.881</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>4.11</td>
<td>0.583</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.75</td>
<td>0.765</td>
<td>4.00</td>
</tr>
</tbody>
</table>

In appraising how the two groups responded to this question the results showed that none of the respondents strongly disagreed with the statement. The most common response was Agree from 12 respondents (46%) that do have a professional
certification as well as 12 respondents (67%) that do not have a professional certification. Furthermore, the responses to this question from both groups of respondents were split across all four responses. This result is reflected in a negative Kurtosis with their responses for both groups being skewed between Agree and Strongly Agree. Table 45 below shows the cross tabulation of the respondent’s attitude as to whether in a project environment the project stakeholders are a key consideration when developing the project communications strategy.

**Table 45: Cross tabulation of responses for professional certification and the stakeholders**

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes N</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>%</td>
<td>8</td>
<td>8</td>
<td>46</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>No N</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>11</td>
<td>67</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Totals N</td>
<td>2</td>
<td>4</td>
<td>24</td>
<td>14</td>
<td>44</td>
</tr>
</tbody>
</table>

**Professional certification and communications method**

The data in this section considers whether the respondents have a professional certification from a project management organisation and the project stakeholders determine the method used in project communications, which was the third question in section two of the questionnaire. In comparing the statistical data, the means for those that do have a professional certification (59%), and those that do not (41%) of 3.46 and 3.67 respectively, were again similar indicating an attitude centred between Neutral and Agree for the entire group of respondents. However, the group of respondents that do not have a professional certification showed that their mean was higher those that do have a professional certification. This may suggest that whether a
person does or does not have a professional certification may not be a determining factor in understanding the stakeholders’ communication methods.

Furthermore, the standard deviations of 1.104 and 0.907 for both groups of respondents respectively, indicates some level of variance of attitudes from the mean within both groups of respondents and could further suggest quite differing views within both groups, and therefore questions whether or not a professional certification may actually assist them to determine the best communication to be used for project stakeholders. Table 46 below shows a comparison of the means, standard deviations, and medians across the two respondent groups.

**Table 46: Statistics for professional certification and the communications method**

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>3.46</td>
<td>1.104</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>3.67</td>
<td>0.907</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.55</td>
<td>1.022</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The results further showed that no respondents strongly disagreed with the statement. The most common response was Agree from nine respondents (35%) that do have a professional certification as well as eight respondents (44%) that do not have a professional certification. Furthermore, the responses to this question from both groups of respondents were split across all of the classifications in the scale. Of further note, five respondents in both groups (19% and 28% respectively) were Neutral on the statement. Quite interestingly, seven respondents (27%) with a professional certification disagreed with the statement, adding further weight to the idea that a professional certification may not necessarily assist the project manager to determine the best communication to be used for project stakeholders. These results are reflected in a positive Kurtosis for both groups of respondents with the responses
showing quite a similar picture across all four responses. Table 47 below shows the cross tabulation of the respondents’ attitude as in determining the communications method to be used for project stakeholders.

**Table 47: Cross tabulation of responses for professional certification and communications method**

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>7</td>
<td>27</td>
<td>5</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>%</td>
<td>27</td>
<td>27</td>
<td>35</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>No</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2</td>
<td>11</td>
<td>5</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>%</td>
<td>11</td>
<td>56</td>
<td>44</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Totals</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>9</td>
<td>20</td>
<td>10</td>
<td>17</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>20</td>
<td>45</td>
<td>23</td>
<td>39</td>
<td>44</td>
</tr>
</tbody>
</table>

**Professional certification and stakeholder information needs**

This section considers whether the respondents have a professional certification from a project management organisation as it relates to the fourth attitudinal question in the questionnaire: the stakeholders have significantly varying information and communication needs through the life of a project. Firstly when comparing means, modes and medians the means for both groups, those that do have a professional certification (59%) and those that do not (41%), the means of 4.15 and 4.00 respectively were similar indicating an attitude centred between on Agree across the entire group of respondents. However, for the group of respondents that do not have a professional certification their mean was lower than for the respondents that do have a professional certification. This result may suggest that whether a person does have a professional certification may actually be a determining factor in understanding varying information needs of a stakeholder in project.
Moreover, the standard deviations indicate a similar pattern to that of the comparative means. The standard deviation for the group of respondents with a professional certification was 0.675 which was lower than for the group of respondents without a professional certification which was 1.029. These results may indicate a differentiation point between the two groups of respondents with the results for those respondents with a professional certification showing only a small variance of attitudes from the mean whilst the result for the group without a professional certification indicating some dispersion and variance from the mean. Table 48 below shows a comparison of the means, standard deviations, and medians across the two respondent groups.

**Table 48: Statistics for professional certification and stakeholder information needs**

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>4.15</td>
<td>0.675</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>4.00</td>
<td>1.029</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.09</td>
<td>0.830</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Details about how the two groups responded to this question indicated that no respondents strongly disagreed with the statement. The most common response was Agree from 14 respondents (54%) that do have a professional certification. For the group of respondents without a professional certification (41%) their most common response was Strongly Agree from seven respondents (39%). It can also been seen that eight respondents (31%) from the group of respondents with a professional certification strongly agreed with the statement. Also, four respondents (15%) with a professional certification were Neutral on the statement, and two respondents (11%) with a professional certification disagreed with the statement. These results could suggest that a professional certification may not necessarily be a determining factor to
identify the varying information needs of stakeholder in a project. Table 49 below shows the cross tabulation of the respondents’ attitude as to determining the varying information needs of a stakeholder.

**Table 49: Cross tabulation of responses for professional certification and stakeholder information needs**

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>0 N</td>
<td>4</td>
<td>14</td>
<td>8</td>
<td>26</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>15</td>
<td>54</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2 N</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>%</td>
<td>11</td>
<td>17</td>
<td>33</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>2 N</td>
<td>7</td>
<td>20</td>
<td>15</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>5</td>
<td>16</td>
<td>45</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

**Professional certification and communications planning**

This section of results cross-tabulates the respondents that have a professional certification from a project management organisation and the fifth question in section two of the questionnaire: project management experience and knowledge assist in developing a project communications strategy. When comparing the statistical results, the means for those that do have a professional certification (59%), and those that do not (41%) the means of 4.35 and 4.28 respectively were very similar indicating an attitude centred between Agree and Strongly Agree for the entire group of respondents. These results may suggest that whether a person does or doesn’t have a professional certification may not necessarily be a determining factor in understanding a project communications strategy, but in fact could actually suggest that collectively their project management experience and knowledge was more relevant in developing a project communications strategy.
Furthermore, the standard deviations show a very similar picture with the standard deviations of 0.745 and 0.669 for both groups of respondents respectively indicating a small level of variance of attitudes from the mean within both groups of respondents and would further suggest not very differing views within both groups and question the fact whether having a professional certification or not may not actually be a key factor in developing a communications strategy. It is worth noting at this point that the standard deviation for the group of respondents with no professional certification was actually lower than that of the group of respondents with a professional certification. Table 50 below shows a comparison of the means, standard deviations, and medians across the two respective respondent groups.

**Table 50: Statistics for professional certification and project management experience and knowledge in developing a project communications strategy**

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>4.35</td>
<td>0.745</td>
<td>4.00</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>4.28</td>
<td>0.669</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.32</td>
<td>0.708</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The data also showed that one respondent from the group with a professional certification actually disagreed with the statement. However, the most common response was both Agree from 12 respondents (46%) and Strongly Agree from a further 12 respondents from the group that do have a professional certification. This result represents 92% of the 26 respondents with a professional certification. Moreover, it can be noted that with the group of respondents without a professional certification (41%) their most common response was Agree from nine respondents (50%). A further observation shows that seven respondents (39%) from the group of respondents without a professional certification also strongly agreed with the statement. This particular result represents 89% of the 18 respondents without a
professional certification. A total of four respondents (9%) across both groups disagreed or were neutral on this statement. These results may add further weight to the idea that whether a project manager has a professional certification or not may not actually be a key factor in developing a communications strategy. Table 51 below shows the cross tabulation of the respondents’ attitude as it relates to their project management experience and knowledge assisting in developing a project communications strategy.

**Table 51: Cross tabulation of responses for professional certification and project management experience and knowledge in developing a project communications strategy**

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>N</td>
<td>%</td>
<td>1</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>46</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>N</td>
<td>%</td>
<td>0</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>11</td>
<td>50</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>N</td>
<td>%</td>
<td>1</td>
<td>21</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>7</td>
<td>48</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

**Professional certification and stakeholder management approach**

The results in this section cross-tabulates the respondents who have a professional certification from a project management organisation and the final attitudinal question posed in section two: project management experience and knowledge assist in developing a stakeholder management approach. The statistical result for both groups, for those that do have a professional certification (59%), and those that do not (41%) confirm that means of 4.62 and 4.44 respectively were very similar (as they were above in developing a project communications strategy) indicating an attitude centred between Agree and Strongly Agree for the entire group of respondents, regardless of whether or not they had a professional certification.
These results may suggest that whether a person does or doesn’t have a professional certification may not necessarily be a determining factor in developing stakeholder management approach. In fact, however, the results could actually suggest that for the entire group of respondents, regardless of whether they did or didn’t have a professional certification their project management experience and knowledge was more relevant in developing a stakeholder management approach.

Furthermore, the standard deviations show 0.496 and 0.616 for both groups of respondents respectively indicating a small level of variance of attitudes from the mean within both groups of respondents. This could add further weight to similar views within both groups regardless of whether the respondent has a professional certification or not and thus it may not actually be a key factor in developing a stakeholder management approach. Finally, the medians show a similar picture of 5.00 and 4.50 respectively indicating quite strong views between Agree and Strongly Agree across the entire group of respondents. Table 52 below shows a comparison of the means, standard deviations, and medians across the two respective respondent groups.

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>4.62</td>
<td>0.496</td>
<td>5.00</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>4.44</td>
<td>0.616</td>
<td>4.50</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.55</td>
<td>0.548</td>
<td>5.00</td>
</tr>
</tbody>
</table>

The results further showed that no respondents strongly disagreed or disagreed with the statement. Furthermore, one respondent from the group of respondents with no professional certification was neutral on the statement. The remainder of responses was split between Agree (41%) and Strongly Agree (57%) across both group of
respondents. The most common response to this statement was Strongly Agree from 16 respondents (62%) with a professional certification. Similarly, the most common response for those without a professional certification was also Strongly Agree from nine respondents (50%). These results could add further weight to the suggestion that whether a project manager has a professional certification or not may not actually be a key factor in developing a stakeholder management approach. Table 53 below shows the cross tabulation of the respondents’ attitude as it relates to their project management experience and knowledge assisting in developing a stakeholder management approach.

Table 53: Cross tabulation of responses for professional certification and project management experience and knowledge in developing a project communications strategy

<table>
<thead>
<tr>
<th>Professional Certification</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>0</td>
<td>10</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>39</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>8</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>%</td>
<td>6</td>
<td>44</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>1</td>
<td>18</td>
<td>25</td>
<td>44</td>
</tr>
</tbody>
</table>

Industry and the frequency of project communications

The results in this section analyse the industry the respondents are employed in a project role and the first attitudinal question asked in section two of the questionnaire: the frequency of project communications in a project is dependent on the stakeholder’s requirements. The data indicated that the number of respondents for all but one industry group were all single digits. The highest represented group in this study (13 respondents, 30%) were those employed in the public sector, whose mean
was 3.54. The highest mean to this question of 4.40 was from those respondents employed within the defence sector. However, this result should be considered with the fact that there were five respondents (11%) and this result may not necessarily be a true reflection of the wider defence sector. The lowest mean to this question, 3.33, was from the three respondents (7%) employed in the construction sector. Not much could be gained from this result given such a low number of respondents from this industry sector. These two divergent industries typically demonstrate strong project management backgrounds, telecommunications and IT; their means of 3.67 and 4.11 respectively were two of the highest in this study and they were lined to the defence sector. However, there were three respondents from the telecommunications sector and nine respondents from the IT sector in this study, and inferences from this small data base cannot be gleaned as a true representation of those industries or their approach to the frequency of project communications given such low representative numbers in the study.

Conversely, the standard deviations show some quite large diversions from the mean within each of the respective groups of respondents. The largest standard deviation result of 2.309 was from those respondents within the telecommunications sector which highlights the point of such a low number of respondents in this study from this sector. The lowest standard deviation of 0.535 was for those respondents within Other industry sectors. It should be stated at this point that there were seven respondents (16%) marked as belonging to the Other industry type as they were respondents from such industries as education, retail, and manufacturing, with only one respondent in each. The next most relevant standard deviation was 0.601 from those respondents employed in the IT sector, which may reflect quite a small variance from the mean for this particular group of respondents. For the highest represented
group of 13 respondents from the public sector (30%) the standard deviation of 1.050 showed some variance across this group from the mean which was centred between Neutral and Agree. Table 54 below shows a comparison of the means, standard deviations, and medians across seven industry respondent groups identified in this study.

**Table 54: Statistics for industry group and frequency of communications**

<table>
<thead>
<tr>
<th>Industry group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>4</td>
<td>3.50</td>
<td>1.291</td>
<td>3.50</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>3</td>
<td>3.67</td>
<td>2.309</td>
<td>5.00</td>
</tr>
<tr>
<td>IT</td>
<td>9</td>
<td>4.11</td>
<td>0.601</td>
<td>4.00</td>
</tr>
<tr>
<td>Defence</td>
<td>5</td>
<td>4.40</td>
<td>0.548</td>
<td>4.00</td>
</tr>
<tr>
<td>Public sector</td>
<td>13</td>
<td>3.54</td>
<td>1.050</td>
<td>4.00</td>
</tr>
<tr>
<td>Construction</td>
<td>3</td>
<td>3.33</td>
<td>1.155</td>
<td>4.00</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>3.57</td>
<td>0.535</td>
<td>4.00</td>
</tr>
<tr>
<td>Totals</td>
<td>44</td>
<td>3.75</td>
<td>0.991</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The results further indicated that one respondent (from the group of respondents employed in the telecommunications industry) strongly disagreed with this question, whereas the responses to this statement for all the identified industry groups were spread across the other four possible responses. Furthermore, the most common response was Agree from six respondents within the IT sector (67%) and six respondents (46%) from the public sector. Furthermore, 21% of respondents (n=9) strongly agreed with the statement. However, a further seven respondents (16%) were neutral on the statement. This result is reflected in a positive Kurtosis with their responses for this group being almost identical with a flat type of outcome across the four responses. Table 55 below shows the cross tabulation of the respondents’ attitude to the frequency of project communications and the stakeholder’s requirements.
### Table 55: Cross tabulation of responses industry group and frequency of project communications

<table>
<thead>
<tr>
<th>Industry group</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>N</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>67</td>
<td>3</td>
</tr>
<tr>
<td>IT</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>67</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td>Defence</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>60</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>Public sector</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>23</td>
<td>15</td>
<td>47</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>33</td>
<td>0</td>
<td>67</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>0</td>
<td>43</td>
<td>57</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Totals</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>22</td>
<td>9</td>
<td>44</td>
</tr>
<tr>
<td>N</td>
<td>2</td>
<td>11</td>
<td>16</td>
<td>50</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

**Industry and the stakeholders**

This set of data and results relates to the industry the respondents are employed in a project role and the second question asked in the attitudinal section: in a project environment the project stakeholders are a key consideration when developing the project communications strategy. The highest mean to this question of 4.80 was from the five respondents (11%) employed within the defence sector. The lowest mean to this question, 3.57, was from the seven respondents (16%) belonging to Other industry types as they were respondents from divergent industries that included education, retail, and manufacturing and for this study, there was only one
respondent in each of the industries noted. With the two industries with typically strong project management backgrounds namely, telecommunications and IT; their means of 4.67 and 4.44 respectively were the next highest mean results in the study. Furthermore, with such low representative numbers of these particular industries in the study no real conclusion could be derived from these results and they cannot be seen as a true representation to their approach in how they would consider the project stakeholders when developing a communications strategy. Also, for the largest represented group of respondents based on industry sector, those in the public sector (30%), the mean for this question was 3.92 which was one of the lowest.

Conversely, the standard deviations for all industry sectors identified in this study indicate quite small variations within each of the groups. The largest standard deviation result of 0.816 was from the four respondents (9%) within the finance sector, and the lowest standard deviation of 0.000 for the three respondents (7%) within the construction sector. However, as with other results, this result could not be considered a true representation of the wider construction sector project management practices, given only three respondents to this study. In summarising the standard deviations they showed that all standard deviations were below 1.000 with all industry groups’ views centred on Agree. Table 56 below shows a comparison of the means, standard deviations, and medians across the seven industry respondent groups identified in this study.
The results from this analysis demonstrated that no respondent strongly disagreed with the statement, and two respondents (one from the public sector, and one from Other group of industries) disagreed with the statement. The strongest response across all industry sectors to this question was Agree and Strongly Agree (54% and 32% respectively). The most common response was Agree from nine respondents within the public sector (69%), whereas five respondents (56%) from the IT sector strongly agreed with the statement. Finally, four of the five respondents (80%) from the defence sector strongly agreed with the statement. Table 57 below shows the cross tabulation of the respondents’ attitude in considering the stakeholders when developing the project communications strategy.
Table 57: Cross tabulation of responses industry group and the stakeholders

<table>
<thead>
<tr>
<th>Industry group</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>25</td>
<td>50</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>33</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>11</td>
<td>33</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Defence</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Public sector</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>8</td>
<td>69</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>14</td>
<td>72</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>2</td>
<td>4</td>
<td>24</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>9</td>
<td>54</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

Industry and the communications method

The results in this section cross-tabulate the respondents’ industry base for which they are employed in a project role and the third question asked in section two of the questionnaire: the project stakeholders determine the method used in project communications. The highest mean to this question of 3.75 was from the three respondents (7%) employed within the telecommunications sector. The lowest mean to this question, 2.86, was from the seven respondents (16%) that were tagged as belonging to the Other industry type as they were respondents from education, retail, and manufacturing with only one respondent in each of these industries responding to the study. This result could reflect the various industries within this category of
respondents, and may reflect a low level of project management within these industries. Of note, the remainder of the means from the other industry sectors ranged between 3.40 and 3.78. These results indicate a similar view and attitude across all industry sectors represented in this study as to their understanding of whether the stakeholders would determine the communications method in a project, and could suggest that their approach may not necessarily be reflective of the industry sector. However, as with other results when looking at industry sector patterns, no real conclusion could be derived from these results and may not be seen as a true representation of the wider project community within these industry sectors.

Similarly, the standard deviations show some pronounced diversions from the mean within each of the respective groups of respondents. The largest standard deviation of 1.342 was from the five respondents (11%) within the defence sector, and the lowest standard deviation of 0.500 for the four respondents (9%) within the finance sector. In summarising the standard deviations for this question it should be noted that all other standard deviations ranged between 0.900 and 1.202 reflecting similar views across the various industry sectors; this could be possibly indicating that the respondents’ views and approach may not necessarily be reflective of the wider industry sector. Table 58 below shows a comparison of the means, standard deviations, and medians across the seven industry respondent groups identified in this study.
Table 58: Statistics for industry group and the communications method

<table>
<thead>
<tr>
<th>Industry group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>4</td>
<td>3.75</td>
<td>0.500</td>
<td>4.00</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>3</td>
<td>4.00</td>
<td>1.000</td>
<td>4.00</td>
</tr>
<tr>
<td>IT</td>
<td>9</td>
<td>3.78</td>
<td>1.202</td>
<td>4.00</td>
</tr>
<tr>
<td>Defence</td>
<td>5</td>
<td>3.40</td>
<td>1.342</td>
<td>4.00</td>
</tr>
<tr>
<td>Public sector</td>
<td>13</td>
<td>3.62</td>
<td>1.044</td>
<td>4.00</td>
</tr>
<tr>
<td>Construction</td>
<td>3</td>
<td>3.67</td>
<td>0.577</td>
<td>4.00</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>2.86</td>
<td>0.900</td>
<td>3.00</td>
</tr>
<tr>
<td>Totals</td>
<td>44</td>
<td>3.55</td>
<td>1.022</td>
<td>4.00</td>
</tr>
</tbody>
</table>

When considering how the various industry groups responded the results also highlighted that no respondent strongly disagreed with the statement. However, a total of nine respondents (20%) disagreed with the statement. The overwhelming response across all industry sectors to this question was Agree (39%). The data also demonstrated that a total of eight respondents (18%) strongly agreed with the statement. These results across all the industry sectors are reflective of a positive Kurtosis with the responses showing a flat type of outcome across the four attitudes. Table 59 below shows the cross tabulation of the respondents attitude in how stakeholders would determine their project communications method.
Table 59: Cross tabulation of responses industry group and the communications method

<table>
<thead>
<tr>
<th>Industry group</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td></td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>25</td>
<td>75</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Telecommunications</td>
<td></td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
<td>100</td>
</tr>
<tr>
<td>IT</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>%</td>
<td>22</td>
<td>11</td>
<td>33.3</td>
<td>33.3</td>
<td>100</td>
</tr>
<tr>
<td>Defence</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>%</td>
<td>40</td>
<td>0</td>
<td>40</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>Public sector</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>%</td>
<td>15</td>
<td>31</td>
<td>31</td>
<td>23</td>
<td>100</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>33</td>
<td>67</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>%</td>
<td>42</td>
<td>29</td>
<td>29</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Totals</td>
<td>9</td>
<td>10</td>
<td>17</td>
<td>8</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>20</td>
<td>23</td>
<td>39</td>
<td>18</td>
<td>100</td>
</tr>
</tbody>
</table>

Industry and stakeholder information needs

The cross-tabulation of data in this section examines the respondents based on the industry in which they are employed in a project role and the fourth question of the attitudinal section of the questionnaire: the stakeholders have significantly varying information and communication needs through the life of a project. The means for this question were similar ranging from 4.00 to 4.25 across all of the industry sectors in this study. These results show an attitude centred on Agree across the entire group of respondents. Of further note, four industry sectors, telecommunications, IT, defence, and construction all recorded means of 4.00. Furthermore, the means for the public
sector respondents (30%) and the group of other industry respondents (16%) were very similar with 4.15 and 4.14 respectively. These results indicate quite a similar view and attitude across all the industry sectors represented in this study as to their understanding of whether stakeholders have varying information needs in a project, and could suggest that their level of understanding may not necessarily be reflective of the industry sector. However, when looking at industry sector patterns, no real conclusion may be derived from these results and they may not be seen as a true representation of the wider project community within these industry sectors.

Conversely, the standard deviations show some pronounced diversions from the mean within each of the respective groups of respondents. The largest standard deviation result of 1.225 was from the nine respondents (20%) from the telecommunications sector, and the lowest standard deviation of 0.000 was for the three respondents (7%) from the construction sector. In summarising the standard deviations it should be noted that all other standard deviations ranged between 0.690 and 1.225 showing some a wide range of variances from the means as well as indicating a variety of attitudes within each industry sectors. However, this could be a product of the low numbers of respondents within each of the industry sectors. Table 60 below shows a comparison of the means, standard deviations, and medians across the seven industry respondent groups identified in this study.
### Table 60: Statistics for industry group and stakeholder information needs

<table>
<thead>
<tr>
<th>Industry group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>4</td>
<td>4.25</td>
<td>0.957</td>
<td>4.50</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>3</td>
<td>4.00</td>
<td>1.000</td>
<td>4.00</td>
</tr>
<tr>
<td>IT</td>
<td>9</td>
<td>4.00</td>
<td>1.225</td>
<td>5.00</td>
</tr>
<tr>
<td>Defence</td>
<td>5</td>
<td>4.00</td>
<td>0.707</td>
<td>4.00</td>
</tr>
<tr>
<td>Public sector</td>
<td>13</td>
<td>4.15</td>
<td>0.801</td>
<td>4.00</td>
</tr>
<tr>
<td>Construction</td>
<td>3</td>
<td>4.00</td>
<td>0.000</td>
<td>4.00</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4.14</td>
<td>0.690</td>
<td>4.00</td>
</tr>
<tr>
<td>Totals</td>
<td>44</td>
<td>4.09</td>
<td>0.830</td>
<td>4.00</td>
</tr>
</tbody>
</table>

By further examining the results, they showed that no respondent strongly disagreed with the statement and two respondents (one from the public sector and one from the IT sector) disagreed with the statement. The overwhelming responses across all industry sectors to this question were Agree and Strongly Agree (46% and 34% respectively). The highest level of response to this question within the industry sectors was from the eight respondents (61%) from the public sector. All three respondents (7%) from the construction sector agreed with the statement. Table 61 below shows the cross tabulation of the respondents’ attitude to the varying information needs of stakeholders in projects.
Table 61: Cross tabulation of responses industry group and stakeholder information needs

<table>
<thead>
<tr>
<th>Industry group</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>25</td>
<td>25</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>%</td>
<td>11</td>
<td>33</td>
<td>0</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Defence</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>20</td>
<td>60</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Public sector</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>%</td>
<td>8</td>
<td>0</td>
<td>61</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>14</td>
<td>57</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>2</td>
<td>7</td>
<td>20</td>
<td>15</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>4</td>
<td>16</td>
<td>46</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

Industry and communications planning

The results in this section relate to the respondents industry in which they’re employed in a project role and the fifth question asked in section two: project management experience and knowledge assist in developing a project communications strategy. The results showed a similar attitude across all the industry sectors for this question reflected within the means ranging from 4.67 to 4.14. These results show an attitude strongly centred between Agree and Strongly Agree across the entire group of respondents. Three industry sectors, construction, IT, and defence recorded very similar means of 4.67, 4.56, and 4.40 respectively. The lowest mean of
4.14 was recorded by 13 respondents in the public sector. These results indicate strong and similar attitudes across all of the industry sectors represented in this study as to their thinking of how experience and knowledge may actually assist in the development of a project communications strategy, and could suggest that their level of understanding may not necessarily be dependent on the industry sector. However, these results need to be viewed in conjunction with the very low numbers of respondents within each industry sector consequently, they are generalisations gleaned from the respondents in this study.

The standard deviations show a small variance from the means within each of the industry sectors. The largest standard deviation result of 0.957 was from the four respondents (9%) from the finance sector, and the lowest standard deviation of 0.527 was for the nine respondents (20%) from the IT sector. All of the other standard deviations ranged between 0.577 and 0.894 showing very small variations across all the industry sectors. Table 62 below shows a comparison of the means, standard deviations, and medians across the seven industry respondent groups identified in this study.

**Table 62: Statistics for industry group and project management experience and knowledge in developing a project communications strategy**

<table>
<thead>
<tr>
<th>Industry group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>4</td>
<td>4.25</td>
<td>0.957</td>
<td>4.50</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>3</td>
<td>4.33</td>
<td>0.577</td>
<td>4.00</td>
</tr>
<tr>
<td>IT</td>
<td>9</td>
<td>4.56</td>
<td>0.527</td>
<td>5.00</td>
</tr>
<tr>
<td>Defence</td>
<td>5</td>
<td>4.40</td>
<td>0.894</td>
<td>5.00</td>
</tr>
<tr>
<td>Public sector</td>
<td>13</td>
<td>4.14</td>
<td>0.801</td>
<td>4.00</td>
</tr>
<tr>
<td>Construction</td>
<td>3</td>
<td>4.67</td>
<td>0.577</td>
<td>5.00</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4.15</td>
<td>0.690</td>
<td>4.00</td>
</tr>
<tr>
<td>Totals</td>
<td>44</td>
<td>4.32</td>
<td>0.708</td>
<td>4.00</td>
</tr>
</tbody>
</table>
The analysis further showed that no respondent strongly disagreed with the statement, and only one respondent (from the public sector group) disagreed with the statement. The overwhelming responses across all industry sectors to this question were Agree and Strongly Agree (48% and 43% respectively). The highest level of response to this question within the industry sectors was from two respondents (67%) from the telecommunications sector, and eight respondents (61%) from the public sector. Table 63 below shows the cross tabulation of the respondents’ industry sector and their attitude to their project management experience and knowledge assisting in developing a project communications strategy.

*Table 63: Cross tabulation of responses industry group and project management experience and knowledge in developing a project communications strategy*

<table>
<thead>
<tr>
<th>Industry group</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>67%</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>44%</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Defence</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>20%</td>
<td>20%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Public sector</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>0%</td>
<td>61%</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>33%</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>14%</td>
<td>57%</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>19</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>2%</td>
<td>7%</td>
<td>48%</td>
<td>43%</td>
<td></td>
</tr>
</tbody>
</table>
Industry and stakeholder management approach

The results in this section detail the industry in which the respondents are employed in a project role and the final question posed in section two of the questionnaire: project management experience and knowledge assist in developing a stakeholder management approach. The means recorded for the telecommunications sector respondents was 5.00. The mean results show a very similar attitude across all the other industry sectors for this question reflected within the means ranging from 4.69 to 4.29. These results show an attitude strongly centred between Agree and Strongly Agree across the entire group of respondents. Five industry sectors, public sector, construction, IT, finance, and defence all recorded very similar means of 4.69, 4.67, 4.44, 4.40, and 4.50 respectively. The lowest mean of 4.29 was recorded by the seven from the Other industry sector respondents (16%). These results indicate similar attitudes across all the industry sectors represented in this study as to their thinking of how experience and knowledge may actually assist in the development of a stakeholder management approach, and could suggest that their level of understanding may not necessarily be dependent on the industry sector. However, these results may need to be viewed in conjunction with the very low numbers of respondents within each industry sector.

The standard deviations show a similar pattern with only small variances from the means within each of the industry sectors. The largest standard deviation result of 1.000 was from the four respondents (9%) from the finance sector, and the lowest standard deviation of 0.000 was for the three respondents (7%) from the telecommunications sector. All of the other standard deviations ranged between 0.488 and 0.548 showing small variations across all the industry sectors. Table 64 below
shows a comparison of the means, standard deviations, and medians across the seven industry respondent groups identified in this study.

Table 64: Statistics for industry group and project management experience and knowledge in developing stakeholder management approach

<table>
<thead>
<tr>
<th>Industry group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>4</td>
<td>4.50</td>
<td>1.000</td>
<td>5.00</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>3</td>
<td>5.00</td>
<td>0.000</td>
<td>5.00</td>
</tr>
<tr>
<td>IT</td>
<td>9</td>
<td>4.44</td>
<td>0.527</td>
<td>4.00</td>
</tr>
<tr>
<td>Defence</td>
<td>5</td>
<td>4.40</td>
<td>0.548</td>
<td>4.00</td>
</tr>
<tr>
<td>Public sector</td>
<td>13</td>
<td>4.69</td>
<td>0.480</td>
<td>5.00</td>
</tr>
<tr>
<td>Construction</td>
<td>3</td>
<td>4.67</td>
<td>0.577</td>
<td>5.00</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4.29</td>
<td>0.488</td>
<td>4.00</td>
</tr>
<tr>
<td>Totals</td>
<td>44</td>
<td>4.55</td>
<td>0.548</td>
<td>5.00</td>
</tr>
</tbody>
</table>

It also emerged that no respondents strongly disagreed or disagreed with the statement. The overwhelming response across all industry sectors to this question was Strongly Agree (57%). The highest level of response to this question within the industry sectors was from nine respondents (69%) from the public sector. Of further note, one respondent from the finance sector was neutral on the question. Table 65 shows the cross tabulation of the respondents broken down by industry sector and their attitude to their project management experience and knowledge assisting in developing a stakeholder management approach.
Table 65: Cross tabulation of responses for industry group and project management experience and knowledge in developing a stakeholder management approach

<table>
<thead>
<tr>
<th>Industry group</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>%</td>
<td>25</td>
<td>25</td>
<td>75</td>
<td>4</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>3</td>
</tr>
<tr>
<td>IT</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>56</td>
<td>44</td>
<td>9</td>
</tr>
<tr>
<td>Defence</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>60</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>Public sector</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>31</td>
<td>69</td>
<td>13</td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>33</td>
<td>67</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>71</td>
<td>29</td>
<td>7</td>
</tr>
<tr>
<td>Totals</td>
<td>1</td>
<td>18</td>
<td>25</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>2</td>
<td>41</td>
<td>57</td>
<td>44</td>
</tr>
</tbody>
</table>

Project role and the frequency of project communications

This section examines the responses when based on the respondents’ project roles and question one in the attitude section of the questionnaire. The roles as identified by the respondents were grouped in three broad project roles as noted by PMI (2004), and the NCSPM (2007): project manager, program manager, and project support officer, all of which were identified in the literature review in table 2 on page 28.

The first question was: the frequency of project communications in a project is dependent on the stakeholder’s requirements. The highest represented group in this
study are project managers with 26 respondents (59%) identifying they perform that role. This is an excellent result as the focus of the Diploma of Project Management is typically aimed at project managers. Furthermore, there were five respondents (11%) who are program managers, and 13 respondents who are project support officers (30%). The statistical data results showed the highest mean of 4.60 was from the five respondents who are program managers. The results also showed the project manger’s group mean of 3.50 was the lowest. These results suggest that program managers place a greater importance on the stakeholder requirements being dependent on the frequency of project communications. However, given such a low number of respondents who are program managers this observation is speculative. For the group of respondents who are project support officers (30%) their mean was 3.92. These results show some variation across the entire group of respondents.

Similarly, the standard deviations show some pronounced diversions from the mean within each of the respective groups of respondents. The largest standard deviation result of 1.140 was from the project manager group, and the lowest standard deviation of 0.494 was from the project support officer group. The result for the project manager group would seem to indicate some variance from the mean within this group of respondents, whilst the result for the project support officer group shows a minimal variance, indicating quite similar views to the statement. Table 66 below shows a comparison of the means, standard deviations, and medians across the three project role types identified in this study.
Table 66: Statistics for project role and frequency of project communications

<table>
<thead>
<tr>
<th>Project role</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>26</td>
<td>3.50</td>
<td>1.140</td>
<td>4.00</td>
</tr>
<tr>
<td>Program Manager</td>
<td>5</td>
<td>4.60</td>
<td>0.548</td>
<td>5.00</td>
</tr>
<tr>
<td>Project Support</td>
<td>13</td>
<td>3.92</td>
<td>0.494</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.75</td>
<td>0.991</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The results also showed that one respondent (from the project manager group) strongly disagreed with the statement. The most common response to this statement was Agree from ten respondents (39%) from the project manager group and ten respondents (77%) from the project support officer group. Five respondents (19%) from the project manager group disagreed with the statement, whilst no other respondent from the other two groups disagreed with the statement. Moreover, the program manager group were split between the Agree and Strongly Agree responses.

Table 67 below shows the cross tabulation of the respondents broken down by project role and their attitude to how the frequency of project communications is dependent of stakeholder’s requirements.
Table 67: Cross tabulation of responses for project role and frequency of project communications

<table>
<thead>
<tr>
<th>Project role</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>%</td>
<td>4</td>
<td>19</td>
<td>19</td>
<td>39</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Program Manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>40</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>Project Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>77</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>22</td>
<td>9</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>2</td>
<td>11</td>
<td>16</td>
<td>50</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

Project role and the stakeholders

The second question in section two of the questionnaire was: in a project environment the project stakeholders are a key consideration when developing the project communications strategy. The mean results showed the highest mean of 5.00 was from the five respondents who are program managers. However, this result would need to be viewed with cautiously as there were five respondents (11%) in this group which may not necessarily represent the view of the wider group of program managers. The mean for project manager group (59%) of 4.08 suggests an attitude of Agree for this group of respondents. Further results showed the mean of 3.92 for the project support officer group was almost in line with that of the project manager group.

The standard deviations show small variances from the means within each of the project role types. The standard deviation results of 0.744 and 0.760 for the project manager and project support officer groups respectively indicate a small level of
variance of attitudes from the mean within both groups of respondents and would further suggest minimal differing views within the respective groups. It also raises the question of whether the project role is a determining factor in considering project stakeholders when developing a communications strategy, given that typically this would be the domain of the project manager rather than a project support officer. The standard deviation of 0.000 for the five program manager respondents (7%) would needs to be viewed as circumspect based on the small number of respondents. Table 68 shows a comparison of the means, standard deviations, and medians across the three project role types identified in this study.

**Table 68: Statistics for project role and the stakeholders**

<table>
<thead>
<tr>
<th>Project role</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>26</td>
<td>4.08</td>
<td>0.744</td>
<td>4.00</td>
</tr>
<tr>
<td>Program Manager</td>
<td>5</td>
<td>5.00</td>
<td>0.000</td>
<td>5.00</td>
</tr>
<tr>
<td>Project Support</td>
<td>13</td>
<td>3.92</td>
<td>0.760</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.75</td>
<td>0.765</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The results from the three groups showed that no respondents strongly disagreed with the statement, whilst two respondents (one from the project manager group and one from the project support group) disagreed with the statement. The overwhelming response to this question across the entire group was Agree (55%). The highest level of response to this question within the project role types was from 15 respondents (58%) from the project manager group, and nine respondents (69%) from the project support group. The five program manager respondents all strongly agreed with the statement. Table 69 below shows the cross tabulation of the respondents broken down by project role and their attitude to considering project stakeholders in developing a communications strategy.
Table 69: Cross tabulation of responses for project role and the stakeholders

<table>
<thead>
<tr>
<th>Project role</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>N: 1; %: 4</td>
<td>N: 3; %: 11</td>
<td>N: 15; %: 58</td>
<td>N: 7; %: 27</td>
<td>N: 26; %: 58</td>
</tr>
<tr>
<td>Program Manager</td>
<td>N: 0; %: 0</td>
<td>N: 0; %: 0</td>
<td>N: 0; %: 0</td>
<td>N: 5; %: 100</td>
<td>N: 5; %: 100</td>
</tr>
<tr>
<td>Project Support</td>
<td>N: 1; %: 8</td>
<td>N: 1; %: 8</td>
<td>N: 9; %: 69</td>
<td>N: 2; %: 15</td>
<td>N: 13; %: 24</td>
</tr>
<tr>
<td>Totals</td>
<td>N: 2; %: 4</td>
<td>N: 4; %: 9</td>
<td>N: 24; %: 55</td>
<td>N: 14; %: 32</td>
<td>N: 44; %: 55</td>
</tr>
</tbody>
</table>

Project role and communications method

The cross-tabulations in this section relate to the third attitudinal question: the project stakeholders determine the method used in project communications and the project role of the respondents. The means for the project manager and program manager groups of 3.69 and 3.80 respectively were similar, indicating an attitude centred on close to Agree from 31 respondents (70%). This result would suggest this response as being in line with the expectation that the project manager and program manager are responsible for conducting a stakeholder analysis and the management of project communications. Conversely, the mean of 3.15 from the project support group, centred on Neutral would be in keeping with the fact that these respondents would typically not be responsible for the stakeholder analysis and project communications in a project environment, but rather under the direction of either a project or program manager.

The standard deviations show some large variances from the means within each of the project role types. It is worth noting that the standard deviation results of 1.011 and 1.095 for the project manager and program manager groups respectively
indicate some level of variance of attitudes from the mean within both groups of respondents. Similarly, the standard deviation of 0.987 for the 13 project support respondents (30%) indicates some level of variance of attitudes from the mean within this group of respondents as well. Table 70 below shows a comparison of the means, standard deviations, and medians across the three project role types identified in this study.

Table 70: Statistics for project role and the communications method

<table>
<thead>
<tr>
<th>Project role</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>26</td>
<td>3.69</td>
<td>1.011</td>
<td>4.00</td>
</tr>
<tr>
<td>Program Manager</td>
<td>5</td>
<td>3.80</td>
<td>1.095</td>
<td>4.00</td>
</tr>
<tr>
<td>Project Support</td>
<td>13</td>
<td>3.15</td>
<td>0.987</td>
<td>3.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>3.75</td>
<td>1.022</td>
<td>4.00</td>
</tr>
</tbody>
</table>

It is worth highlighting that no respondents strongly disagreed with the statement. However, a total of nine respondents (20%) across all three project role types disagreed with the statement. Furthermore, four of these respondents (15%) are from the project manager group. The response pattern for the project manager is reflective of a positive Kurtosis with the responses showing a flat type of outcome across the four attitudes. The overwhelming response to this question across the entire group was Agree (38%). The highest level of response to this question within the project role types was from ten respondents (39%) from the project manager group, and three respondents (60%) from the program manager group. Finally, the response pattern for each of the three groups is also reflective of a positive Kurtosis with the responses showing an almost flat type of outcome across the four attitudes. Table 71 below shows the cross tabulation of the respondents broken down by project role and
their attitude to how project stakeholders may determine the method of communications.

*Table 71: Cross tabulation of responses for project role and the communications method*

<table>
<thead>
<tr>
<th>Project role</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>23</td>
<td>39</td>
<td>23</td>
<td>39</td>
</tr>
<tr>
<td>Program Manager</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>0</td>
<td>60</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Project Support</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>Totals</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>10</td>
<td>17</td>
<td>8</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>23</td>
<td>39</td>
<td>18</td>
<td>44</td>
</tr>
</tbody>
</table>

*Project role and stakeholder information needs*

This section examines the cross-tabulations of the role of the respondent and the fourth question in section two of the questionnaire: the stakeholders have significantly varying information and communication needs through the life of a project. The results showed that the means for all three groups of respondents (project manager, program manager, and project support) of 4.12, 4.20, and 4.00 respectively were very similar indicating an attitude between Agree and Strongly Agree. This result suggests that regardless of what role the respondent performs in a project, it showed a similarity of attitudes and views across the entire group of respondents.

The standard deviation of 1.304 was for the program manager group. However, for the project manager and the project support group's standard deviations of 0.816 and 0.707 were similar. The standard deviation result for the program manager group may need to be viewed as circumspect with only five respondents.
noting they performed the program manager role. However, the standard deviation result for the project manager and project support groups showed minimal variances from the means within each of the project role types, which may add further weight to the suggestion that the project role may not be a determining factor in understanding the varying information needs of stakeholder in a project. Table 72 below shows a comparison of the means, standard deviations, and medians across the three project role types identified in this study.

Table 72: Statistics for project role and stakeholder information needs

<table>
<thead>
<tr>
<th>Project role</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>26</td>
<td>4.12</td>
<td>0.816</td>
<td>4.00</td>
</tr>
<tr>
<td>Program Manager</td>
<td>5</td>
<td>4.20</td>
<td>1.304</td>
<td>5.00</td>
</tr>
<tr>
<td>Project Support</td>
<td>13</td>
<td>4.00</td>
<td>0.707</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.09</td>
<td>0.830</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Investigating how the three groups responded the results further showed that no respondents strongly disagreed with the statement. However, two respondents (one from the project manager group, and one from the program manager group) disagreed with the statement. The overwhelming response across all project role types to this question was Agree (46%). The data further showed that 15 respondents (34%) strongly agreed with the statement. The highest level of response to this question across the three groups of project role types was from 12 respondents (46%) from the project manager group. A total of seven respondents (16%) were neutral on this statement, of which four respondents (15%) were from the project manager group, and three respondents (23%) from the project support group. Moreover, seven respondents (54%) from the project support group agreed with the statement. Table 73
below shows the cross tabulation of the respondents broken down by project type sector and their attitude to the varying information needs of project stakeholders.

Table 73: Cross tabulation of responses for project role and stakeholder information needs

<table>
<thead>
<tr>
<th>Project role</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>%</td>
<td>4%</td>
<td>15%</td>
<td>46%</td>
<td>35%</td>
<td>46%</td>
</tr>
<tr>
<td>Program Manager</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>%</td>
<td>20%</td>
<td>0%</td>
<td>20%</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Project Support</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>23%</td>
<td>54%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Totals</td>
<td>2</td>
<td>7</td>
<td>20</td>
<td>15</td>
<td>44</td>
</tr>
<tr>
<td>%</td>
<td>4%</td>
<td>16%</td>
<td>46%</td>
<td>34%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Project role and communications planning

The results in this section detail the project role of the respondent and the fifth question in the attitudinal section of the questionnaire: project management experience and knowledge assist in developing a project communications strategy.

Comparing the statistical results showed that the means for all three groups of respondents (project manager, program manager, and project support) of 4.27, 4.40, and 4.38 respectively were similar indicating an attitude between Agree and Strongly Agree. The means of the program manager and project support groups are almost identical, with the project manager group being the lowest of the means recorded for this question. This result may suggest that regardless of the project role the views and attitudes were very similar across the entire group of respondents.

Similarly, the standard deviations indicate that the highest standard deviation of 0.827 was from the project manager groups, whilst the standard deviations of 0.548
and 0.506 for the program manager and project support groups respectively indicated a small deviation from the means across both of these groups of respondents. The standard deviation results add further weight to the argument that the project role may not be a determining factor in developing a project communications strategy, but rather the respondents’ experience and knowledge as was asked in the question in the study. Table 74 below shows a comparison of the means, standard deviations, and medians across the three project role types identified in this study.

Table 74: Statistics for project role and project management experience and knowledge in developing a project communications strategy

<table>
<thead>
<tr>
<th>Project role</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>26</td>
<td>4.27</td>
<td>0.827</td>
<td>4.00</td>
</tr>
<tr>
<td>Program Manager</td>
<td>5</td>
<td>4.40</td>
<td>0.546</td>
<td>4.00</td>
</tr>
<tr>
<td>Project Support</td>
<td>13</td>
<td>4.38</td>
<td>0.506</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.32</td>
<td>0.708</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The results further illustrated that no respondents strongly disagreed with the statement. One respondent (from the project manager group) disagreed with the statement. The responses across all project role types to this question was Agree from a total of 21 respondents (48%), and Strongly Agree from 19 respondents (43%). The responses from the five respondents from the program manager group were also split between Agree (60%) and Strongly Agree (40%). The highest level of response to this question was from 12 respondents (46%) from the project manager group. Finally, eight respondents (61%) from the project support group agreed with the statement, and no respondents were Neutral on the statement. Table 75 below shows the cross tabulation of the respondents broken down by project type sector and their attitude to project management experience and knowledge assisting in developing a project communications strategy.
Table 75: Cross tabulation of responses for project role and project management experience and knowledge in developing a project communications strategy

<table>
<thead>
<tr>
<th>Project role</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Manager</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>11</td>
<td>39</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Program Manager</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>60</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Project Support</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>61</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>19</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>7</td>
<td>48</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

Project role and stakeholder management approach

The cross-tabulation results in this section examine the role of the respondent in a project and the sixth and final attitudinal question: project management experience and knowledge assist in developing a stakeholder management approach. The means for all three groups of respondents (project manager, program manager, and project support) of 4.54, 4.80, and 4.46 respectively indicated that they were similar, highlighting a strong attitude tending toward Strongly Agree. Of particular note is the mean of the project support group which is higher than that of the project manager group, which typically in a project environment would be the responsibility of the project manager, and is also one of the key competency areas in the Diploma of Project Management. This result may suggest that regardless of the project role the views and attitudes were very similar across the entire group of respondents.

The highest standard deviation of 0.582 was from the project manager group, whilst the lowest standard deviation of 0.447 was for the program manager group. The standard deviation result of 0.519 for the project support group is very similar to that of the project manager group. The standard deviation results show small variances...
from the mean across all three project role types. These results may add further weight
to the argument that the project role may not be a determining factor in the
development of a stakeholder management approach, but rather the respondents’
experience and knowledge as was asked in this question in the study. Table 76 below
shows a comparison of the means, standard deviations, and medians across the three
project role types identified in this study.

**Table 76: Statistics for project role and project management experience and
knowledge in developing a stakeholder management approach**

<table>
<thead>
<tr>
<th>Project role</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>26</td>
<td>4.54</td>
<td>0.582</td>
<td>5.00</td>
</tr>
<tr>
<td>Program Manager</td>
<td>5</td>
<td>4.80</td>
<td>0.447</td>
<td>5.00</td>
</tr>
<tr>
<td>Project Support</td>
<td>13</td>
<td>4.46</td>
<td>0.519</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>4.32</td>
<td>0.548</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Further examination of the results showed no respondents strongly disagreed
or disagreed with the statement in this question. The overwhelming response across
all project role types to this question was Strongly Agree from a total of 25
respondents (57%), whilst a further 18 respondents (41%) agreed with the statement.
One respondent from the project manager group was neutral on the statement. The
highest level of response to this question was from 15 respondents (58%) from the
project manager group. The responses from the 13 respondents from the project
support group were split between Agree (54%) and Strongly Agree (46%), whilst the
five respondents from the program manager were also split between Agree (20%) and
Strongly Agree (80%). Table 77 below shows the cross tabulation of the respondents
broken down by project type sector and their attitude to project management
experience and knowledge assisting in developing a stakeholder management
approach.
Table 77: Cross tabulation of responses for project role and project management experience and knowledge in developing a stakeholder management approach

<table>
<thead>
<tr>
<th>Project role</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>N 1</td>
<td>10</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>% 4</td>
<td>38</td>
<td>58</td>
<td>26</td>
</tr>
<tr>
<td>Program Manager</td>
<td>N 0</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>% 0</td>
<td>20</td>
<td>80</td>
<td>5</td>
</tr>
<tr>
<td>Project Support</td>
<td>N 0</td>
<td>7</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>% 0</td>
<td>54</td>
<td>46</td>
<td>13</td>
</tr>
<tr>
<td>Totals</td>
<td>N 1</td>
<td>18</td>
<td>25</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>% 2</td>
<td>41</td>
<td>57</td>
<td>44</td>
</tr>
</tbody>
</table>

Comments from respondents

At the end of Section 2 in the questionnaire, respondents were provided space to write any comments with respect to stakeholder management and communications that were not mentioned or captured in the attitude questions.

Examining and reviewing the comments provided by the respondents, four broad themes emerged: project communications, the project stakeholders, project management experience, and project management education. Ten respondents (23%) provided additional comments.

Project communications

Four respondents commented and linked the value of effective project communications with stakeholder management. One respondent wrote:

Project managers need to keep stakeholders informed.

Another respondent identified the role that soft skills plays in stakeholder and communication management:
Project management experience helps with sourcing the content (the facts) of communications to stakeholders – such as cost, time, earned value, project risk level etc and can all come from project management practice. But the soft skills have greater effectiveness depending on the message that the communication is trying to deliver, i.e. – if the project is on track then less influence, but if the project requires urgent attention then the communication needs to go beyond the facts and outline options and recommendations through the leadership and management skills of the project manager.

Similarly, another respondent noted that:

I believe that the key to a successful project is to make sure that all stakeholders (positive/negative influence) are identified in the early stages of planning, clearly documented and that their needs are clearly defined, managed and if possible met within reason. Also the stakeholders within any project need to be constantly reviewed as they will vary during the life of a project i.e. they come and go.

Poignantly the other respondent linked the stakeholder’s communication needs to stakeholder management, and commented that:

Project managers need to keep stakeholders informed; this is the key to release pressure on the various senior managers and other related project stakeholders through effective communication methods.

These views seem to be in line with the literature reviewed and the data collected through the questionnaire, noted in the findings of this study. Clearly, these respondents saw the key aspect of keeping stakeholders informed throughout the life of the project.
Project stakeholders

Two respondents commented on the role of the project stakeholder. The comments offered by these respondents seem to recognise the value of stakeholder management, but also the value and need to manage the project soft skills in particular when dealing with the project stakeholders.

One respondent commented that:

A good project usually depends on the stakeholders’ experience, knowledge and personal skills.

But probably the most poignant comment was offered by the other respondent who wrote that:

Stakeholders are the key to successful project delivery. Where project stakeholders are both important and influential, then they are primary stakeholders and must be fully engaged in the governance and steering of the project. Where stakeholders are either important or influential, then they are secondary stakeholders and need to be actively managed during the project.

The comment offered by this respondent goes to heart of this research study with the recognition of stakeholders being the key to the success of a project. However, this respondent also delineates between primary and secondary stakeholders in relation to their influence an importance in the project, but certainly sees the need to closely manage the stakeholder relationships.

Project management experience

Two respondents commented on the value of project experience as it pertains to project stakeholders. One respondent commented on project experience and communication planning:
I’ve had experience project management experience in an industry with 3
different companies and the use of project documentation was one way of
managing and engaging with the project stakeholders. The other way was call
on my project management experience to assist me with communications and
stakeholder management.

The other respondent linked stakeholder management to the use of project
documentation, whilst also recognising the value of project management experience,
and commented that:

While I agree that project management experience assists in developing a
stakeholder management approach, to really excel in this area project
managers should seek to enhance their skills through human relation studies
with practical application. Attempt to truly understand the key individuals and
define an influencing strategy for them.

These comments would suggest that these respondents recognise and
acknowledge the need for project management experience, coupled with the
knowledge of the project stakeholders and their varying needs and expectations
throughout the life of a project.

Project management education

Two respondents commented on their experiences prior to completing the
Diploma of Project Management. One respondent commented that:

I’ve had no other training in project management, my responses above reflect
my personal experience of managing projects and then in conjunction with
what I learned in the Diploma course. The requirements of stakeholders must
clearly be balanced against available resources and time.
Similarly, the other respondent noted that:

Prior to doing and completing the Diploma course, my approach to trying to manage projects was solely based on my personal experiences. This involved looking at who the stakeholders were, and then looking at the projects deliverables and outcomes, and looking at the stakeholder’s role.

The comments offered by these respondents demonstrate the value of project management experience and the learning outcomes they gained from completing the Diploma of Project Management.

The views and comments offered by the respondents seem to reinforce the themes discussed in the literature review in Chapter 2, and further support the researcher’s view, in conjunction with the data and results as discussed earlier in this chapter, that the project soft skills may be the key to a successful project.

The comments offered by the respondents also allowed for the emergence of some of the key themes discussed in the literature review such as the relevance of the project management competency standards, the use of stakeholder management models, the value and learning outcomes of the Diploma of Project Management, and the link to the human relations skills (as noted by one respondent above) and suggested by Mersino (2006 and 2007) in his work on the role that emotional intelligence plays in project management.

Summary

This chapter provided the data analysis and results gathered from a survey questionnaire which was emailed to 103 Diploma of Project Management graduates from the ACPM across Australia. Forty-four completed questionnaires were returned to the researcher. The intent of the questionnaire was to determine the attitude of the
graduates in relation to the industry principles, standards and literature relating to the
project soft skills: stakeholder and communication management.

The literature suggested that project success is more than the traditional on
time and on budget, but success can be viewed through another lens: through the
management of the soft skills. The literature identified five key factors which guide
and assist in the management of stakeholders and communications in a project: the
frequency and method of project communications, the stakeholder, the
communications requirements of the stakeholder, and the project manager’s
experience and knowledge.

The analysis of the respondents’ demographic data (section 1 of the
questionnaire) showed a wide range of years in project management. It showed almost
an even split across the group of respondents who have other educational
qualifications and professional certification. The data also showed the respondents
were primarily from six industry sectors; however given the low number of
respondents from within each sector no attribution could be inferred from the data.

Analysis of the attitudinal questions (section 2 of the questionnaire)
predominantly showed a favourable attitude from most respondents to the five key
factors relating to the identified soft skills. The key finding from this analysis
suggested that the experience and knowledge of the respondent were key factors in
project planning for stakeholders and communications.

The cross-tabulation analysis between demographic data collected from
section 1 and the attitudinal data collected from section 2 allowed the researcher to
further examine whether a relationship existed between the respondents’ years of
project experience, educational qualifications, industry, role in projects, and
professional certification and the five key factors identified in the literature which are
basis of the project soft skills. The cross-tabulation analysis confirmed as the key finding that the attitudes of the respondents were that their experience and knowledge, regardless of their years of project experience, educational qualifications, industry, role in projects, or professional certification, were the key factors in the application of the soft skills. Finally, ten participants provided additional comments at the end of section 2 which added further insight into their attitudes to stakeholder and communication management, which was underpinned by their experiences and knowledge.

The next chapter discusses the findings described in this chapter in light of the broad conceptual frameworks for the study, and the literature which this study is based upon. The findings will centre on the five components of the respondents background: project experience, educational qualifications, industry, role in projects, and professional certification whilst drawing on their attitudes to the key factors of the soft skills. Finally, the post-study limitations and how the data and findings may support the thesis questions are highlighted.
Chapter 5

Discussion

Introduction

This study aimed to examine a key area of project management: stakeholder and communication management; the two project soft skills. To achieve this aim a small sample of 103 graduates, with 44 respondents, of the Diploma of Project Management program from the Australian College of Project Management (ACPM) were surveyed, for their views and attitudes on the soft skills of project management. It was argued and discussed in the review of literature that there has been a deficiency of data and information regarding project stakeholders and communications, and the management of the soft skills as being a key to project success (Bourne, 2006).

The review of literature presented details about the research surrounding project stakeholders and communications management. It provided a background of the development of project management knowledge and competencies, whilst also focusing on relevant literature from local and international writers about the wider project management field. The literature review also discussed two models that have been developed to assist the project manager in stakeholder identification, mapping, and analysis, whilst also introducing the relevance of the emerging role of Emotional Intelligence (EI), and its link to relationship management in projects, and to the project soft skills. It was noted that a number of researchers (Dinsmore, 1999; Hartley, 2003; Turner, 1999; and Schwalbe, 2002) have focused on the ‘hard’ factors of project management whilst ignoring the soft skills. Other writers and researchers (Azzopardi, 2007; Baccarini and Durrell, 2006; Beard, 2005; Bourne, 2003 and 2006; Carbone and Gholston, 2004; Hudson, 2008; Kleim and Ludin, 1997; Loo, 2002; Pant and Baroudi, 2006; Strang, 2003; Teoh, 2008; Turner and Muller, 2005; Woodward,
2005) posited that project management and role of the project manager is a challenge in people and relationship management. According to Muzio, Fisher, Thomas, and Peters (2007), the development of project soft skills in project managers and other project staff is critical for project success.

Drawing on this information as the basis for this study, the research process was two-fold. First, it sought to collect and identify background information on the qualified project management participants for the study. Details gleaned in this area covered five main elements: years of project experience, other tertiary and/or higher education qualifications, professional project management certification, the industry, and the project role. Secondly, the questionnaire sought to ascertain the participants’ attitudes against commonly held industry practices and principles of project communication and stakeholder management utilising six attitude questions. The collection of this data and information was achieved by using a survey questionnaire.

The data and results from this study provided details of both the participants’ background and their attitude toward commonly held industry practices and principles of project communication and stakeholder management. It further examined whether any themes emerged based on further analysis of the participants’ background and the project communication and stakeholder management attitude questions through cross-tabulations between the participants’ background and their attitude to the practices and principles of project communication and stakeholder management.

As a result, the data from this research established that there is a direct correlation between project stakeholders and project communications, which for this study has been identified as the project soft skills. However, it is argued that the current and historical paradigm of project success of the project management industry for too long has been dominated by the paradigm of: on time and on budget. This led
the researcher to consider whether there may be another way of determining what actually defines project success as it pertains to education and course outcomes for Diploma of Project Management graduates. Consequently, this chapter draws on and discusses the findings of the study by summarising and analysing general trends identified in the data analysis. The discussion centres on the five main elements of the participants’ background: years of project experience, other tertiary and/or higher education qualifications, professional project management certification, the industry, and the project role. Furthermore, this chapter also examines correlations and relevance to the attitude questions and links these details to issues and themes gleaned from the literature. Finally, how the data results are applied to the thesis research questions is noted.

**Background information**

*Years of project experience*

The data showed quite a significant range of project management experience ranging from one to 23 years. In relation to the attitudinal questions, the first finding showed quite a high level (mean = 3.75) across the respondent group indicating that the years of project management experience could in fact impinge on their approach to determining the frequency of project communications. This view is supported by a number of researchers in the field. The Standish Group (1999 and 2001), in reviewing many projects worldwide, identified several factors that led to successful projects. Of particular note they found that “successful projects are delivered by experienced project managers, with validated skills and knowledge through practical application and experiences” (p.4). They further suggested that projects fail due to the lack of project management experience, and suggested that stakeholder and communication management can mitigate project risk and lead to the successful delivery of project
outcomes. Additionally, The Standish Group (1999 and 2001); found that 97% of successful projects had an experienced project manager leading the project. Furthermore, Bourne (2005) posited that the skills a project manager acquires through the years of experience, knowledge and application must be balanced with the need to manage the stakeholder expectations and relationships.

The second and third findings of this study concerning project experience were in relation to considering project stakeholders when developing a project communication strategy and communication methods. The results indicated quite a high level of acceptance across the respondent groups with a mean of 4.14 and 3.55 respectively. In the Communications Management competency standard, it was noted that an experienced project manager needs to exhibit effective communications management skills which include identification of project stakeholders and the appropriate use of technology in project communications. However, The Standish Group (2001) noted that project success was delivered by experienced project managers who balanced and considered the project stakeholders with the project outcomes via a well defined and documented communication strategy. This was further supported by Wideman (2000) who writes that skills, knowledge and experience will deliver project success. Further, Bourne (2003) noted that project managers use and learn various tools and techniques from their project experiences for stakeholder and communication planning and management.

One of the most significant findings from this study in relation to years of project experience was from the fifth and sixth attitudinal questions regarding the respondents’ experience and knowledge as it applied to developing a communications strategy and stakeholder management approach. Drinkwater (2007) posited that the key differentiators of project success are the project managers’ experiences,
knowledge developed through the years, and their approach to project communications. She suggested that to succeed the project manager should engage with the project stakeholders by understanding their needs and developing communication and stakeholder plans accordingly. Finally, as has been shown in the literature, Mersino (2006) suggested that the project manager needs to manage the project relationships by understanding the needs of all stakeholders and that communications should be central to their approach.

In summary, the findings of this study in relation to years of project experience, based on the attitudes and responses of the respondents to this study, indicated that project management experience could significantly impact and determine the project success through the management of the soft skills. This finding is further supported by PMBoK (2004) where it states that “effective and successful project management requires that the project manager and the team use their knowledge, experience, and the project’s environment, including the stakeholders to deliver a successful project outcome” (p.12).

Tertiary and higher education qualifications

The qualifications levels of the respondents showed a wide range of educational levels of the graduates that complete the Diploma of Project Management with the ACPM. The range of other educational qualifications ranged from Certificate IV up to higher education degrees including doctorates.

What can be seen from the results is a quite a high level of acceptance and understanding across all of the respondents, regardless of whether or not they possess another qualification; of the link between project communications and stakeholder management. This would suggest that their level of understanding and awareness of the importance of how project communications and stakeholder management may
affect project outcomes stems from their attendance and completion of the Diploma of Project Management course. This is supported by industry research and articles that link project management education and successful projects. Kleim and Ludin (1997) initially offered this view on project management education:

University and tertiary institutions need to take to the view that people who undertake their courses and programs need components of soft skills to be included in the training through the use of experiential, subjective and cognitive learning approaches (p. 16).

Lewis (2003) suggested that successful project management organisations were those that conducted and funded project management education programs. He also added that effective education programs should include soft skills. He posited that the reason projects succeed or fail is due to “people problems” (p. 22). Carbone and Gholston (2004) noted that “successful project management education course and programs should include soft skills training, whilst also drawing on the student’s experiences” (p.15). Delaney (2002), in discussing the idea of lifelong learning, cited Dr Anne Lytle, a lecturer at the Australian Graduate School of Management, to highlight the importance project management education:

Lifelong learning is about adapting to a changing world. No matter how much education you have had, there is always the need for more education. Think of it as continuously updating your knowledge and skills in a changing world. (p.4)

Motschnig-Pitrik (2006a) further suggests that “learning is most effective, if it includes the whole person. This means that for meaningful, deep and persistent learning not only the intellect but also feelings, meanings, ideas, skills, dispositions, etc. need to be included” (p.1). She goes on to add that “academic,
tertiary practice, and initial research show that Person Centered Encounter Groups
have their place in both higher and higher education, if interpersonal attitudes and
skills are to be developed along with subject knowledge” (p.8).

These views are further enhanced when considered with other literature within
the industry on the volatility of the project environment. Wideman (2002) sums this
position up by stating that “projects are people and stakeholder centric and need to be
considered in the context of the fact that the project environment will always have
elements of risk, uncertainty, and conflict” (p. 2). Project management education is
further reinforced through two key areas of literature in the field: the Project
Management Body of Knowledge (PMBoK, 2004) and the National Competency
Standards for Project Management (NCSPM, 2007) which highlighted the importance
of both project communications and stakeholders.

The PMBoK (2004) identifies nine key project management knowledge areas,
of which three are focused on the soft skills: integration management,
communications management, and human resource management. These processes
describe the elements and interfaces that should be completed by the project manager
to deliver a successful project outcome. In contrast he NCSPM (2007), sets out the
performance criteria, skills, knowledge and attributes the project manager should and
must possess in completing their qualification of the Diploma of Project Management.
Like the PMBoK (2004), the NCSPM (2007) also identifies three key competencies
that pertain to the project soft skills: project integration, project communications, and
project human resources. Given this, it would appear that the graduates of the
Diploma of Project Management from the ACPM have indeed understood and
identified the key link that exists between project communications and the project’s
stakeholders. Teoh (2008) stated that in her experience “more project managers need
to attend and complete project education programs given the ever changing role and evolution of project such as people management” (p.2). She also notes that organisations need to have an education plan for their project managers to ensure application in the workplace to deliver successful project outcomes. Furthermore, she contends “that if more people have a deeper understanding of project management and how to apply it more organisations would be able to lift their performance” (p.3). Finally Teoh (2008) suggested that organisations have started to acknowledge the relevance and importance of project management and the value of effective education programs.

Another supportive view is offered by Hudson (2008) citing Dr Lynne Crawford, in which project management is at the top of the pyramid in the construct of the wider project management field, accordingly (from the top down): qualifications, education, standards, project management industry knowledge, and research. Hudson (2008) contends that project management education should be part of the project manager’s professional development. Vaughan (2008) suggests that project management education is more than just learning, but should be about enhancing skills through the learning and assessment process. Sense (2007) supports this where he contends that “learning as a practical activity is always socially structured where the conditions and forms for learning are established and based on a situational and experiential approach” (p.38). Further evidence offered by Iyer (2005) who reports that “a project management professional who wants to do well in his/her career does not have a choice but to engage in soft skills training” (p.2). In addition, Iyer (2005) writes that “soft skill training is essential because we do not have enough of it in academic curricula” (p.2). In outlining his view of the need for soft skills, Iyer (2005) writes that the project manager must possess what he calls “the 6 soft skills for
project success” (p.1): interpersonal skills, team spirit, social grace, business etiquette, negotiation skills, and behavioural traits such as attitude and motivation.

These views offered by industry researchers and writers further enhance the findings of this study which highlights the graduates’ outcomes, with respect to their attitudes, awareness, and relevance of the project soft skills. Moreover, these views also highlight the effectiveness in some part of ACPM’s Diploma of Project Management program in relation to the project soft skills as has been detailed in the results in the previous chapter.

Professional project management certification

A majority of the respondents (59%) identified that they have professional certification with a project management organisation. The majority of which was with the AIPM, whilst two respondents were certified with the Project Management Institute (PMI).

The data and results showed no real difference or delineation between whether the respondent has or does not have professional certification from a project management organisation. Overall the results showed that a majority of respondents, regardless of whether they have professional certification, identified and made the link between stakeholder and communication planning in projects. This was evidenced with results ranging of means ranging between 3.6 and 4.6. This was reinforced and supported from the data across the two groups of respondents, those with a professional certification and those without as identified in the cross-tabulations results presented in this study.

The two main bodies in Australia that offer project management certification are the AIPM and the Project Management Institute (PMI). AIPM’s Registered Project Manager (RegPM) program involves an individually designed competency-
based workplace assessment. Candidates are required to compile evidence that displays their competence in project management. It is awarded at one of three levels, with the level designated as Certified Practising Project Manager (CPPM) aimed at the project manager level. AIPM state that “certification is the term used by professional institutes to recognise individuals who have attained a certain professional standard” (p.2). AIPM further state that educational qualifications are a separate form of recognition of ability, and that qualification does not guarantee a certification. The competency standards against which the award is granted are based on extensive research into national and international best practice in project management at the levels of work found in most private and public sector workplaces.

The assessment and validation of the candidate’s ability and application of project management skills is entirely based on current and past workplace experience.

Assessment of the candidate’s skills is based on the AQF level five standards.

PMI is a global organisation with a 40-year history of advocacy for the project management profession; it supports practitioners with project management credentials, education and knowledge through their Project Management Professional (PMP) program. A PMI credential establishes the candidate’s dedication to and proficiency in project management. To attain this credential, the candidate must satisfy educational, professional, and workplace experience requirements established by PMI and demonstrate their ability to apply the project management knowledge to situational and scenario-based questions in an examination. This level of certification is governed by the candidate’s ability to demonstrate sufficient knowledge and experience in order to appropriately apply a methodology to projects that have reasonably well-defined project requirements and deliverables based on the PMBoK
The key component to these two approaches to certification is that they are both face-to-face, taking into account experience, education, and knowledge.

The approaches taken by AIPM and PMI to providing professional certification through demonstrated experience, knowledge, and education is further supported by Vaughan (2008) who notes that gaining certification is essential for project managers as it also further cements the role that project soft skills plays when managing projects. Hudson (2008) reinforces this view where he identifies the key elements of a practitioner: has a Diploma of Project Management, is a practising project manager, and has an appropriate level of project experience. He further adds that professional certification should also be part of the project manager’s professional development. However, Vaughan (2008) further posits that effective project managers need to develop and further enhance their soft skills to deliver successful projects. This he suggests is through project experience, with roles such as project support can provide ideal foundations in project management.

Issues about professional certification further reinforce the underlying findings that have emerged from the data and results in this study. That is, education, knowledge, and experience are the key to successful projects, whilst also recognising the importance of managing the project soft skills. It further cements the contention and is supported by results gleaned from this study, that regardless of whether the respondent has or does not have a professional certification, the underlying factor on their attitude and approach to the project soft skills could be attributed in some part to the knowledge they gained from completing the Diploma of Project Management course, coupled with their years of experience in projects.
Industry

The representation of respondents in this study was predominantly from three main industry sectors (in order of number of respondents): the public sector, IT, and defence. These three sectors represented 62% of the entire group of respondents; however it must be noted that the results attributed or apportioned for any of the industries discussed in this study cannot be taken as a true representation of that industry sector given the very low numbers of respondents in this study.

In terms of attitudinal responses the results across the various industry sectors were quite similar, with some documented exceptions. Regardless of industry sector affiliation, all respondents seemed to indicate a good level of acceptance of the principles and practices of communication and stakeholder management in projects. However, the industry-based results would need to be treated as circumspect given the very low numbers of respondents from the various industry groups in this study.

It is noteworthy that some literature points to some industry specific project management requirements and approaches. Thite (2000) stated that IT requires trained and qualified project managers to lead projects. He further suggests that successful projects are part of a wider group of project stakeholders and need to employ such skills as the project soft skills to ensure successful delivery of their outcomes. Similarly, Muzio et al (2007) identified through their research that one particular telecommunications organisation indicated that “95% of its successful project performance is due to the soft skills such as leadership, relationship management, and communication” (p.1). Baccarini and Collins (2004) in a research study on project success of 150 practising project managers found that “project management success should focus on satisfying stakeholders during the project management process” (p.1). In the research Baccarini and Collins (2004) looked at 23 project success criterion
which ranged from time, cost, quality, to risks, safety, and client and stakeholder satisfaction. Of the 23 criteria, stakeholder satisfaction (95% of respondents) was the criteria considered to be a measure of project success of his study. He noted that “respondents strongly identified project success through stakeholder satisfaction” (p.5).

Conversely, Hodgson and Cicmil (2008) identified what they called “a litany of high-profile project debacles around the world that has provided a recurrent theme over the last two decades that poor project performance can be found across various industries” (p.144). The projects they cited included the Denver Airport, the Jubilee Line London Underground Extension, the Scottish Parliament, and Shell’s Sakhalin 2 oil and gas discovery project. They suggested that one of the chief reasons these projects failed was due to the poor application of the standardised project management practices and standards (such as PMBoK, 2004) and the consideration of such factors as the project stakeholders, relationship management, communications, and teamwork. Shenhar and Dvir (2007) also reviewed a number of projects to highlight the need to “go beyond the typical paradigm of on time and on budget, but to look at success as a measure of the interests of the stakeholders” (p.22). They cite the 1993 Los Angeles Red Line Metro project. The project faced many technical and management challenges such as underground water, noxious gases, and buried oil wells. But the greatest challenge they noted was “changing the attitudes of the citizens by convincing them to use the metro” (p.24). This project won the PMI Project of the Year in 1993 which by the traditional project management paradigm was considered a world-class success. However, it did not address the needs and interests of its major stakeholders. Upon completing stage one of the project, the remaining stages were dropped due to the train usage being lower than expected. Subsequently, key aspects
of managing the attitudes of the citizens were never met in favour of ensuring the project was “a model of excellence in public works, design, and construction” (p.26).

Similarly, PMI (2004) note that “industry specific knowledge and practices such as technological, project life-cycles, societal impacts” (p.329), need to be considered in the application of the practices and processes outlined in the PMBoK (2004). They discuss two industry sectors that were represented in this study: construction and the public sector. In the construction industry they note all work is performed under contract, there are industry specific practices and processes related to procurement that are peculiar to the construction industry. For the public sector they note that practices within government are driven by contracting, acquisition regulations, and procurement guidelines that may not necessarily exist in other industry and private sectors. Finally, PMI (2004) suggest that effective application of the PMBoK (2004) and project management processes must be considered in terms of the unique and unusual aspects and environment of all industry sectors. Quite clearly this view is supported and evidenced by the work of Hodgson and Cicmil (2008) in looking at failed projects around the world from various industry sectors.

In terms of this study’s findings, the noted discussion would seem to support findings that some industries have specific approaches to project management, but also adds further weight to the notion the project soft skills, as described by Hodgson and Cicmil (2008), Muzio et al (2007), PMI (2004), and Shenhar and Dvir (2007), quite clearly are not industry specific and may actually be a reason whether a project succeeds or fails. Finally, the findings from this study indicate that the responses were driven mainly from the respondents’ experience, and may well suggest that the respondents’ attitude and perceptions to stakeholder and communication management, regardless of their industry sector, may have been shaped and impacted through the
learning and course outcomes from completing the Diploma of Project Management program.

Role in projects

The respondents were grouped into three main categories as described by PMI (2004) and the NCSPM (2007): project support, project manager, and program manager. Typically, the project support role is concerned with assisting or contributing to projects, project support personnel and their level of qualification would be the Certificate IV in Project Management. The program manager, however, is a person who manages other project managers as part of a much larger program of work that is typically aligned to the organisation’s business strategies. The program manager in this instance would possess an Advanced Diploma of Project Management. Finally, the project manager, the person responsible for the delivery of all facets of the project, and more specifically the management of the project soft skills, would typically possess a Diploma of Project Management. The largest represented project role in this study was that of a project manager (59%), which is the focus and aim of the Diploma of Project Management course. There were 30% of respondents who identified their role as a project support role.

The standards and practices described by the PMBoK (2004) and the NCSPM (2007) clearly place the responsibility of stakeholder, relationship, and communication management with the project and/or the program manager. However, the results from this study did not indicate this, as the responses across all the attitudinal questions were very similar, and showed quite a high level of acceptance of the communication and stakeholder practices across the entire group of respondents, regardless of what role they performed in the projects.
The focus of the Diploma of Project Management competency standards is aimed at practising project managers with the training in the key elements of project management as well as the opportunity to gain a nationally recognised qualification. In gaining their qualification from the ACPM, the respondents were required to complete an assessment of their skills and knowledge through a competency-based assessment. The assessment process is based on the candidate providing evidence of their current skills and knowledge and is measured against the NCSPM (2007). Furthermore, the assessment is concerned on how the candidate applies the skills and knowledge in their workplace. This is supported by Gale and Brown (2004) who suggest that elements of the PMBoK (2004) do actually link to education competencies and provide for key areas of focus for learners in the project management education field.

The PMBoK (2004) in identifying the key skills of the project manager focuses on the function of project communications, stakeholder management, and relationship management in a project. Similarly, Newton (2005) in his book *The Project Manager: Mastering the Art of Delivery*, noted, the chapter “Listening and Talking” (p.19), was “the most important chapter in the book” (p.19). He went on to suggest that some of the key skills of the project manager are to identify and assess the stakeholders, their information needs, and plan the interaction with them. This was reinforced with the stakeholder management tools described in the review of literature in this study; the Power-Influence Grid, and the Stakeholder Circle, which both clearly identify the project manager as having a key role in analysing the project stakeholders.

Mersino (2006) stated that the better project managers are those who are able to develop and sustain the project relationships and posited a model based on EI as a
mechanism for the project manager to be a better relationship manager through understanding the emotions and needs of all project stakeholders. He further noted that the project manager must be the centre of all project communications as a vehicle to better manage the project relationships and ultimately the project soft skills. Casper (2002) writes that “the project manager must create a climate where clients, team members, sponsors, and management; all the project stakeholders, must communicate with clarity” (p.1). Casper (2002) goes on to add that “understanding and using EI is now critical for project success (p.1). In her paper, she offers real examples on how a project manager can implement and use EI against five key areas: self-awareness, self-management, self-motivation, interpersonal management, and leadership. The key outcomes she identifies include:

- Seek input from other stakeholders;
- Invite feedback;
- Plan your project management activities;
- Network with the right people;
- Involve all the project stakeholders across the entire lifecycle;
- Listen and empathise;
- Manage relationships through sharing;
- Communicate regularly;
- Create a project culture through shared goals and objectives within the project team;
- Keep the project focused; and
- Celebrate success. (p.3-4)

The preceding discussion clearly shows the role of the project manager as being enshrined in the international standards (PMBoK, 2004), and the NCSPM
(2007), whilst further supported by the vast array of industry literature of the role that the project manager should and must play in communication, relationships, and stakeholder management. However, this can be tempered by the findings from this study that indicate that regardless of the role of the respondent, their attitude, understanding and application of communication and stakeholder management practices and processes may stem from their attendance and completion of the Diploma of Project Management program.

The next part of the discussion addresses the three research questions.

**Research questions**

*What are the general professional characteristics of the Diploma of Project Management graduates with respect to their professional experience in project management, their educational qualification(s), professional certification, type of industry, and their project role?*

A total of 44 completed questionnaires were received out of a total of 103 electronically distributed surveys. The general characteristics of the respondents to this study are summarised based on the five demographic data collected in Section 1 of the questionnaire: years of project experience, other qualifications possessed by the respondent, whether they hold a professional certification by project management organisation, the industry sector, and their project role.

The majority of respondents (64%) had between one and five years of project management experience, with an average of 5.89 years of project management experience. Thirteen percent of the respondents identified that they had 11 or more years of project management experience.

An overwhelming number of respondents (89%) possessed another qualification other than the Diploma of Project Management. These ranged from Certificate IV to university degrees and doctorates. Moreover, just above half of the
respondents (59%) held a professional certification with either the AIPM or PMI, of which 55% were certified with the AIPM.

A total of nine industry sectors were represented in this study, of which the highest representation was from the public sector with 30%. The other eight industry sectors represented in this study were finance, telecommunications, IT, Defence, construction, education, retail, and manufacturing.

Finally, there were three project roles identified by the respondents. The majority of respondents (59%) are project managers. This is significant as the Diploma of Project Management is focused on the role and function of the project manager. The other two roles identified were the program manager, and project support officer. Typically, according to the PMBoK (2004), “the program manager is a role that manages multiple project managers, and the support officer would typically assist the project manager” (p.10).

What are the attitudes of the graduates towards the soft skills of projects as they relate to communication and stakeholder engagement?

The results and findings of the respondents from the study indicate quite a high to very high level of attitude and acceptance of the commonly held practices of stakeholder and communication management. Of particular note were the following results which highlight some of the key attitudes as espoused by the respondents:

- A large majority of respondents (71%) either agreed or strongly agreed that the frequency of project communications is dependent the stakeholders’ needs;
- An overwhelming number of respondent (87%) felt that project stakeholders are key to developing a communications strategy;
- A majority of respondents (57%) either agreed or strongly agreed that stakeholders were key to the communication method adopted in a project;
A large majority of respondents (80%) strongly identified that the stakeholder has varying information needs throughout the life of a project; and

Project management experience and knowledge were considered by over 90% of respondents as key to developing a communications strategy and stakeholder management approach.

The data and findings established in this study have shown the results of the respondents to the attitudinal questions which were based on the commonly held practices in project management as it relates to the project soft skills. It further utilised this data through a process of cross-tabulating the attitudes of the respondents as it pertained to the participants’ background such as years of project experience, other qualifications, professional certification, industry, and project role.

What, if any new information provided by the graduates can inform the curriculum content within the project management education field?

The data and results for this investigation suggest that the respondents’ attitudes and perceptions support the notion that successful projects are delivered through the focus and management of the project soft skills. However, neither the researcher nor the findings of this study suggest that the respondents (regardless of their years of project experience, industry sector, the qualifications they possess, whether they have professional certification, and the role they perform in projects) do actually complete successful projects; instead the findings identify and provided their attitudes and perceptions to the commonly held practices of stakeholder and communications management in projects as described in the literature review. The data showed quite a high level of acceptance from the respondents regarding the importance of stakeholder and communication management. For all six attitudinal questions the respondents strongly identified and showed their level of acceptance of:
• The frequency of project communications to the stakeholders;
• The project stakeholders’ role in communications;
• The varying information and communication needs of the stakeholders; and
• The role that project management experience and knowledge plays in planning communications and stakeholder management approaches.

These results are highlighted and supported by the a wide range of literature which has been reviewed from a wide range of Australian and international sources (such as Bourne, 2003, 2006, and 2009; Carbone and Gholston, 2004; Gale and Brown 2004; Gillard, 2009; Hudson, 2008; Kleim and Ludin, 1997; Muzio et al, 2007; Pant and Baroudi, 2006; Pearce and Robins, 2006; Teoh, 2008; Vaughan, 2008; Wideman, 2002), which support the notion that project success can be certainly enhanced through the management of the project soft skills and should be considered as part of project management practices and education curriculum.

The results from this investigation suggest that, regardless of the respondents’ years of project experience, the industry sector, the qualifications they possess, whether they have professional certification, and the role they perform in projects, the underlying thread that links all of the respondents and their overwhelming positive attitude to stakeholder and communication management, is that they completed the Diploma of Project Management program.

The literature further pointed to the role of EI in the management of communication, relationships and stakeholders in projects, whilst also suggesting successful project managers should possess these skills as core competencies. Furthermore, the PMBoK (2004) and the NCSPM (2007) provided the underpinning basis and knowledge base for the project management industry standards and
practices which also clearly highlighted the need for effective stakeholder and
communication management as essential in the role of the project manager and the
delivery of a successful project.

A number of researchers and writers from the literature have offered and
posited a variety of areas that can, and some would suggest should, be included in the
Diploma of Project Management curriculum. This information should include:

- The application, inclusion and the role of EI on projects and the project
  manager, as espoused by Casper, (2002), Clarke (2010), and Mersino
  (2006 and 2007);
- The value and application of a stakeholder mapping tool, as suggested by
  Bourne (2006);
- Discussion and attributes of an effective project manager must include the
  people and soft skills, as posited by such researchers as Ayas and Zenuik
  Gale and Brown (2004), Kleim and Ludin (1997), Motschnig-Pitrik,
  2006b; Muzio et al (2007), Pant and Baroudi (2006), Wideman (2002), and
  Vaughan (2008) to name but a few;
- More focus on the soft skills as described in the PMBoK (2004);
- The use of students’ previous and current experiences in course
  curriculum, as suggested by Bourne (2005), and Gillard (2009); and
- Greater curriculum emphasis on relationships, communications, teamwork,
  and stakeholders, as suggested by Baccarini and Collins (2004), Baccarini
  and Durrell (2006), Beard (2005), Bourne (2003 and 2005), Carbone and
  Gholston (2004), Gumm (2007); Kleim and Ludin (1997), Loo (2002),
  Motschnig-Pitrik (2006b); Mersino (2006 and 2007), Pant and Baroudi
Additionally, the comments offered by some of the respondents as presented in the data and results chapter further enhance the argument that project management experience and knowledge are vital in the management of the project soft skills. The responses identified four broad themes: project communications, the project stakeholders, project experience, and project management education. Some of the key information offered by some of the respondents included:

- Project management experience and knowledge helps in identifying project communications and the stakeholders information needs;
- The project manager should go beyond the typical paradigm of on time and on budget, but consider the role that leadership and management skills plays on the role;
- All stakeholders (both opponents and supporters) are vital to project success; and
- The need for the project manager to enhance their soft skills through training.

Additionally, two respondents identified the need for project management education in enhancing their knowledge and application of the project soft skills. The information they offered included:

- Their responses were solely based on their course learning and outcomes; and
- The Diploma of Project Management highlighted the need for stakeholder identification and management.
Finally, the study’s results in surveying practising project professionals seemed to provide further links to between the theory and literature accessed and the practice from the graduates from the ACPM with a Diploma of Project Management. The results indicated that the respondents’ attitudes seemed to stem from not only their experience and project management knowledge, but also from completing the Diploma of Project Management program.

**Post-study limitations and weaknesses**

Prior to commencing this study a number of potential limitations and weaknesses or risk factors were identified. At the conclusion of this research a number of weaknesses pertaining to the use of a survey instrument are now discussed and explained.

Firstly, the group of respondents for this research does not necessarily represent the wider project management student population, or the wider population of the various industry sectors identified and represented in the study. The small sample size does not present a valid response rate in respect of the project management industry in total.

The use of e-mail to send out the questionnaire to the identified graduates could have contributed to the poor response rate (44 completed questionnaires out of a possible 103 that were sent out). Wadsworth (1997) noted that the use of a questionnaire is seen as irrelevant to some individuals. Sarantakos (2005) further suggested that questionnaires provide for pre-coded questions which can limit the responses. Creswell (2005) however adds that a method in improving the response rate is to “use good follow-up procedures” (p.368), which includes re-sending a second questionnaire two weeks after the original was sent out to the individuals who
have not responded, and then two weeks after that sending out a reminder to the non-respondents reminding them to complete the questionnaire.

In retrospect, one of the key reasons for a low response rate was that not enough graduates were invited to participate in the study. It should be clearly noted that the idea of statistical significance as noted by Sarantakos (2005) is whether the results of the study can be applied and are reflective of the wider population. In the case of this study, given a response rate of 43% (44 respondents), and applying Fowler’s Sample Size Confidence Table (as cited by Creswell, 2005, p. 583) it would suggest only a 50/50 chance in the level of confidence from the results of this study with the expected characteristic that only a 17% sampling error would be tolerated. Sarantakos (2005) provided another model for determining the sample size from a given population. He identified a table published by Krejcie and Morgan (1970) “as an easier way of estimating sample size” (p.173). For this study with a given population of 656 graduates between January 2004 and December 2007 the estimated sample size suggested by Krejcie and Morgan (1970), as cited by Sarantakos (2005, p.173) should have been 242 potential respondents. Sarantakos (2005) further reports that “the table published by Krejcie and Morgan in 1970 provides a handy tool for estimating the sample size required in each case when a study is to be carried out and when the sample is to be representative” (p.174).

Apathy or a lack of willingness from the non-respondents in taking the time to complete the questionnaire is another consideration for the low response rate. This could be attributed to concern for their anonymity, the study’s ethics, and/or the relevance of the study as it pertains to their current work arrangements. Creswell (2005) identifies this as response bias with a low response rate related to bias in those who did not respond. This he posits manifests itself through responses that do not
accurately reflect the views of the sample and the wider population. Creswell (2005) suggests a model called wave analysis as a procedure to do spot checks on a group of returns by intervals (per day or per week). In hindsight this study would have benefited from the researcher following-up with the prospective respondents, and allowing more time for the completion and return of the questionnaire. This could have strengthened not only the return rate, but also enabled the researcher to draw better conclusions that could be attributed to the wider project management industry.

The use and application of descriptive statistics is another limitation of this study. Sarantakos (2005) writes that “descriptive statistics offer only general descriptions of the data, whilst relational statistics looks for associations” (p.373). Furthermore, Creswell (2005) writes that “descriptive statistics are best used to overall trends and tendencies of a study for an entire population, whereas, inferential statistics allows the researcher to make inferences concerning some of the unknown aspects of the population” (p.181). Whilst, descriptive statistics provided a description of the overall group of respondents, this study could have been benefited with the application of more inferential statistics as way of making predictions of the entire population. Creswell (2005) suggests that “because of size and cost it is impossible to study the entire population, so instead through inferential statistics we examine the sample that has been chosen from the population” (p.186).

The final weakness of the study’s approach is the use of e-mail to send out the questionnaire to the sample group. Whilst this provided for some level of confidentiality, it could also have been treated as ‘just another email’. Perhaps a better approach would have been to use an internet-based survey instrument (such as Survey Monkey). Sarantakos (2005) suggests that this type of approach “opens the door to a
significantly larger number of people and assists in questionnaire administration in eliminating human error” (p.264).

Summary

This chapter provided a discussion of the data and results of the study. A survey questionnaire was sent electronically to 103 Diploma of Project Management graduates of the ACPM, of whom 44 responded with completed questionnaires. The aim of the study was to determine their attitudes to six commonly held practices and principles of stakeholder and communication management in projects: the soft skills.

The literature review suggested that project success may not necessarily lie in the traditional paradigm of on time and on budget, but rather through the management of the project soft skills. Project management experience and knowledge emerged as two of the key factors in the attitudes of the respondents to this study. The other key factor which emerged and seemed to suggest an underlying common thread to the high level of acceptance and attitude of the respondents to the project soft skills was the completion of the Diploma of Project Management program. The cross-tabulation analysis between the demographic data (collected in section one of the questionnaire) and the attitude questions (section two of the questionnaire) allowed for further exploration of the respondent’s attitudes and their demographics with the respect to the soft skills. The results highlighted the fact that regardless of their years of project experience, industry sector, the qualifications they possess, whether they have professional certification, and the role they perform in projects, in completing the Diploma of Project Management provided a heightened level of awareness in the application of the project soft skills. This seemed to be the only factor that had a significant explanation in relation to the strong attitudinal responses offered by the respondents.
Chapter 6

Conclusions and Recommendations

Conclusions

This research project explored the understanding and attitudes of Diploma of Project Management graduates from the Australian College of Project Management (ACPM) regarding commonly held practices and principles with respect to the project soft skills: communication and stakeholder management. The study attempted to connect the graduates’ project experience and knowledge with the project soft skills. To date, there has been no quantitative study on the outcomes and views of Diploma graduates as it pertains to the project soft skills from a theory and practice perspective. However, through details emerging from the literature review, it is evident that a large body of interest and research is beginning to develop showing a shift within the project management profession to recognising the value and importance of the soft skills.

This study presented details about the background and overview of the project management standards and competencies in Australia, and then discussed the emergence and identification of the project soft skills within both the Project Management Body of Knowledge (PMBOK, 2004), and the National Competency Standards for Project Management (NCSPM, 2007). Furthermore, a wide range of literature showed a changing paradigm with a move away from the typical on time and on budget theme, toward an awareness and acceptance of the role that the project soft skills play in the delivery of successful projects. This research study defined the concept of the project soft skills and developed and identified an operational definition of the project soft skills as it relates specifically the key role of the project manager.
In Chapters 1 and 2 of this study, the typical project management paradigm for a successful project - the hard skills (on time and on budget) - was shown to be the dominant paradigm within the project management industry. Furthermore, it was also found that an emerging paradigm of the soft skills in the industry literature showed the importance and application of the project soft skills. This covered the domain and responsibility of the project manager, in a project environment for Diploma of Project Management graduates.

This study allowed for an examination of the graduates’ views, attitudes, and perceptions regarding the principles and practices of the project soft skills as graduates of the Diploma of Project Management. Consequently, this research has revealed that while most graduates recognised and were able to apply the principles and practices of communication and stakeholder management, there were some underlying themes that delineated between several groups within the group of respondents. The underlying themes were determined through the background information collected from the participants that allowed for further analysis, discussion and segmentation of the data gathered in the study. The background information data areas that were collected were years of project experience, other qualifications held by the participants, whether they held a professional certification, the industry they are employed in a project role, and the role they perform in projects.

The quantitative nature of this study held as its focus Diploma of Project Management graduates from the ACPM. The study’s main aim was to canvass the participants’ views, attitudes, and perceptions to the project soft skills.

This study is beneficial initially for the ACPM because this organisation is provided with research that identifies the understanding and attitudes to the project soft skills of the graduates of their Diploma of Project Management program.
However, given that the research group was extremely limited in size, it is acknowledged that the findings cannot be generalised to the broader Diploma of Project Management education programs that are delivered and offered by the various tertiary and higher education institutions across Australia. Nevertheless, the concept in the value and reality of the project soft skills can and does provide for some empirical evidence that identifies the value of the project soft skills for the project manager as well as the project management education field. In addition, once the findings and literature from this research are made available through intended publication, the ACPM and the wider project management education field will have a greater understanding of not only the views and attitudes of project management education graduates, but how vital the project soft skills are to successful projects, and the need for them to be incorporated into project management education programs.

A number of researchers and writers in the literature linked project management education to successful projects. Kleim and Ludin (1997) offered this view on project management education:

University and tertiary institutions need to take to the view that people who undertake their courses and programs need components of soft skills to be included in the training through the use of experiential, subjective and cognitive learning approaches. (p. 16)

Lewis (2003) then suggested that successful project management organisations were those that conducted and funded project management education programs. He added that effective education programs should include soft skills. Carbone and Gholston (2004) noted that “successful project management education courses and programs should include soft skills training, whilst also drawing on the student’s experiences” (p. 15). Finally, Pant and Baroudi (2006) identified the need for Emotional Intelligence
(EI) as being a key component of professional project management competence and education. They write that “EI must be considered a component of occupational competence and must come into the realms of learning and education in the corridors of formal university education” (p.126).

While it is claimed that findings using a questionnaire and quantitative research do not allow for further probing or prompting of questions (Sarantakos, 2005), Creswell (2005) argued that a quantitative research approach can attempt to describe trends for a wider population, associate variables (such as participant’s background information), and look at correlation trends within the group of respondents. This study has indicated a number of themes that evolved from the paradigm of project soft skills that have emerged from the data analysis. These themes relate to both the theory and literature of the soft skills and the operational understanding and application from the graduates of ACPM’s Diploma of Project Management program.

The researcher has argued that the findings of the research may not be able to be generalised to other project management diploma programs, nor generalised across the various industry sectors represented in this study. The researcher contends that the outcomes and findings of this study can only be attributed to this particular group of respondents and in some way to other graduates of ACPM’s Diploma of Project Management program. For this reason the researcher argues that further future studies in project soft skills should be pursued.

It is deemed that this study while limited in scope could be seen as a pilot study that could be refined and even extended to a much larger training institution or graduate population. A broader examination of comparative and diverse Diploma of Project Management graduates could complement this study and provide the wider
project management education field with not only diploma graduates’ views and attitudes but also encompass the approaches and application within the various industry sectors.

**Recommendations**

Given the findings of this research, if institutions that offer the diploma program are interested in a fuller understanding of diploma graduates’ outcomes, the application and understanding of the project soft skills, course completion should not be the only measure of the skills of a project manager as it pertains to the soft skills. It is based on this position that this study has generated the following recommendations:

**Recommendation 1:** Appreciating that this study is only indicative in nature and is limited in its scope, further research that expands on the soft skills and the understanding and attitudes for other diploma program graduates needs to be undertaken in order to explore and examine whether those programs include and meet the requirements of the soft skills. It is recommended that the Australian Institute of Project Management (AIPM), the peak body for project management in Australia, consider a wide ranging quantitative study aimed at gleaning the attitudes and understanding of qualified and professionally certified project managers as a way to gathering more detailed and comprehensive data in respect to the graduates’ outcomes of various diploma programs. This information can be utilised by the various institutions that offer the diploma program for curriculum design, catering to the specific student’s needs. Additionally, the Department of Education Employment and Workplace Relations (DEEWR) could utilise this information in further refinement of the project management competencies.

**Recommendation 2:** Given the intent of education institutions is to attract students to their programs to meet the skilling requirements of project managers, there
is genuine need to have a greater understanding of the new soft skills paradigm offered in this study. It is recommended that the various tertiary and higher education institutions examine how to meet the soft skills education requirements of students in what a number writers and researchers (Bourne, 2003; Carbone and Gholston, 2004; Gale and Brown, 2004; Kleim and Ludin, 1997; Motschnig-Pitrik (2006b); Muzio, Fisher, Thomas, & Peters, 2007; Vaughan, 2008; Wideman, 2002) posit as being the attributes of an effective project manager. This change must include the people and soft skills, as well as provide for key areas of focus for learners and educational institutions in the project management field. Consequently, these details could be used for project management curriculum reviews or curriculum development activities.

Recommendation 3: While this research was based on a small group of graduates from the ACPM, it has demonstrated the value of the project soft skills through the data gathered from the study and also from the industry literature reviewed. Consequently, it is recommended that the various tertiary and higher education institutions which offer the diploma program consider the inclusion of key areas identified in this study including the use of EI and the role of the project manager, the application and use of stakeholder mapping tools, and the application of soft skills in their course curriculum.

The final recommendation, which is based on recognising that the nature of project management, as highlighted by the Project Management Body of Knowledge (PMBoK, 2004) is applicable to a wide variety of industries. Therefore, it is recommended that tertiary and higher education institutions consider not limiting their promotion of their programs to the typical and traditional industries such as IT, telecommunications and defence, but rather consider the non-traditional industries,
such as education, retail, manufacturing, and science that have been identified in this study. The education institutions should promote the view that project management is not a stand-alone competency, but rather sits within the broader management competencies.

Finally, this study generated responses from adult learners who are also practising project professionals. These elements have been identified and expanded upon through the development and expansion of the notion of soft skills as it is applied not only to a project environment but also as it pertains to an educational setting as a diploma graduate.

**Thesis Summary**

The increasing need for soft skills to be managed, applied in a project environment, and become part of the project manager’s skills set is now more widely recognised. Previously, the soft skills had been overlooked due to the prevailing paradigm within the project management profession of on time and on budget as being the measure of a successful project. A large amount of literature recognised the value and suggested that successful projects and indeed successful project managers applied and managed the soft skills through communication, stakeholder, and relationship management.

This thesis highlights, above all else, the critical importance of the personal and people skills such as relationship and stakeholder management, that are supported in some way with the data gathered from the study, and should be part of the skills set of a project manager. Further, the models discussed for stakeholder analysis recognise the need to not only identify stakeholders, but also identify an approach to manage the relationships with the stakeholders. These models and indeed the various writers suggested that the project manager must be able to balance the requirements of the
stakeholders and their relationships through the management of information flow in a project environment. Hence, education programs and education institutions should and must now incorporate the soft skills aspects of the role of the project manager within the course curriculum. Tertiary and higher education institutions which offer the Diploma of Project Management program and are committed to the delivery of genuine outcomes and skills of graduates must now recognise the soft skills and related competencies not in a cursory mention, but in real terms through curriculum design and course content. Further, the wider project management profession, through the Australian Institute of Project Management (AIPM), must also recognise the soft skills in the review and development of the competency standards. As demonstrated by components of this study, tertiary and higher education institutions that offer the Diploma of Project Management program must provide their students and graduates with the necessary skills to better apply and manage the project soft skills in a project environment through learning resources, experiential learning, and the broader education framework.
PARTICIPANT INFORMATION for QUT RESEARCH STUDY

The ‘soft’ skills of Project Management: A view from Diploma graduates

Researcher details
Name: Joe Campana
Phone: 0400 506635
E-mail Address: Joe.Campana@planpower.com.au

Description
This research is being undertaken as part of a research study by Joe Campana as part of his post-graduate studies of Master of Education through the Queensland University of Technology (QUT).

It is proposed that a research project be conducted of Diploma of Project Management graduates from the Australian College of Project Management (ACPM). It is proposed that this research be into a key area of project management: stakeholder and relationship management through communication - the soft skills.

It is expected that the study be designed to identify any qualifications and project management experience of the respondents. Further, it will identify the respondents understanding of their attitude to commonly held principles and literature within the project management field as it relates to the soft skills. This relates specifically to project experience and knowledge, communication management, and the stakeholders needs.

Industry writers have provided a lot of evidence and data to back the proposal of this study. Literature was accessed and reviewed from a wide range of Australian and international sources which clearly indicate that project success can be enhanced through stakeholder management.

A project is a success if all the work goes as planned. In a successful project objectives are well defined, work is completed as scheduled and resources are used efficiently. Project success means handling and managing the ‘hard’ factors of a project (on time, on budget, to a scope and specifications) with the soft skills (managing people, through communication and relationships) against the competing interests and requirements of all stakeholders. Stakeholders comprise individuals and/or groups which have a vested interest in the outcome of the project.

Participation
Your participation, should you choose to participate, will involve the completion of a questionnaire within two (2) weeks of you receiving the questionnaire. It is expected that all completed questionnaires be returned by no later than close of business 15 August 2008. The questionnaire should take you no longer than 15 minutes to
complete. The completed questionnaire can be emailed back to the researcher to the email address specified at the end of the questionnaire.

**The research instrument**
The questionnaire is divided into two (2) sections: Section 1 is designed to collect background information about the respondents and Section 2 is focused on project document distribution and stakeholders utilising six (6) attitude type questions with space at the bottom for further comments. Finally, no further time or involvement will be required from the participants upon completion of the questionnaire.

**Expected benefits**
It is intended that all participants will receive the outcomes and findings of this study. Additionally, it is expected that this research will assist you and future students in the area of project management and others to better inform, provide learning and further insight into project management for the consultants and teachers across the greater project management education community. Further, it is anticipated that the outcomes and findings will be presented to be delivered, published and distributed across the wider project management industry.

**Risks**
There are no additional risks associated with your participation in this project.

**Confidentiality**
All comments and responses will be treated as private and anonymous and will be treated confidentially.
All information, data, questionnaires collected through this study will be maintained in a secure environment to ensure confidentiality and protection of all project information. All data and information related to this study will only be seen by the Research Supervisor and the researcher. At the completion of the study all questionnaires and related information will be destroyed in a secure manner.
The names of individual participants are *not* required and will not be collected at any time during this research study. All returned emails will be deleted once the questionnaire has been printed. All research activity will be undertaken in accordance with QUT’s policy on the conduct of research involving human participation which can be downloaded or viewed at [http://www.mopp.qut.edu.au/D/D_06_03.jsp](http://www.mopp.qut.edu.au/D/D_06_03.jsp)

**Voluntary participation and consent**
Your participation in this study is voluntary. The return of the completed questionnaire is accepted as an indication of your consent to participate in this study.

**Questions and further information**
If you have any questions or require any further information about the project, please don’t hesitate to contact the researcher.

**Concerns or complaints**
QUT is committed to researcher integrity and the ethical conduct of research projects. However, if you do have any concerns or complaints about the ethical conduct of the project you may contact the QUT Research Ethics Officer on 07-31382340 or via email at ethicscontact@qut.edu.au. The Research Ethics Officer is not connected with the research study and can facilitate a resolution to your concern in an impartial manner.
### Research Questionnaire

*The soft skills of Project Management: A view from Diploma graduates*

**Section 1: Participants background**

1. How many years of project management or project experience do you have?

2. Do you hold any other tertiary or higher education qualification?
   - Yes [ ]
   - No [ ]
   If yes what are they?

3. Do you hold a professional project management certification?
   - Yes [ ]
   - No [ ]
   If yes, with which organisation?
   - AIPM [ ]
   - PMI [ ]
   - Other [ ] *(Please specify)*

4. In what industry(s) have you or are currently employed in a project role?

5. What role(s)/position(s) have you or currently perform in projects?
Section 2: Stakeholder management and communications questions
(Please select one)

1. The frequency of project communications in a project is dependent on the stakeholder's requirements.
   - Strongly disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

2. In a project environment the project stakeholders are a key consideration when developing the project communications strategy.
   - Strongly disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

3. The project stakeholders determine the method used in project communications.
   - Strongly disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

4. The stakeholders have significantly varying information and communication needs through the life of a project.
   - Strongly disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

5. Project management experience and knowledge assist in developing a project communications strategy.
   - Strongly disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

6. Project management experience and knowledge assist in developing a stakeholder management approach.
   - Strongly disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree

7. Do you have any further comments or feedback?

Thank you for your participation

Please email to: Joe.Campana@planpower.com.au
Appendix 2 – Letter of request to the Director of ACPM

Nicolas West
Director
Australian College of Project Management

5 March 2008

Dear Mr West

Re: Access to student database for Master of Education study

My name is Joe Campana, and I'm in the process of completing a Master of Education post-graduate degree through Queensland University of Technology (QUT). My final requirement is for a research study and thesis.

My thesis is titled: The ‘soft’ skills of Project Management: A view from Diploma graduates

The short brief of my thesis is as follows:

"A research project to be conducted of Diploma of Project Management graduates from ACPM, a Registered Training Organisation (RTO) in Australia. It is proposed that this research would be into a key area of project management: stakeholder and relationship management through communication - ‘the soft skills’.

It is proposed that a research project be conducted of Diploma of Project Management graduates from one Registered Training Organisation (RTO) in Australia. It is proposed that this research be into a key area of project management: stakeholder and relationship management through communication - the soft skills.

It is expected that the study be designed to identify any qualifications and project management experience of the respondents. Further, to identify the respondents understanding of their attitude to commonly held principles and literature within the project management field as it relates to the soft skills. This relates specifically to project experience and knowledge, communication management, and the stakeholders needs.

The major research method to be used is a questionnaire (survey) that would be sent out and returned via email.

I am writing to you to invite your organisation to contribute to this study by allowing your graduates to participate in this study. This will entail the completion of a questionnaire (survey).

I have designed a questionnaire that would be emailed to the respondents, which may be returned to the researcher either by fax or email.

In completing the questionnaire, which in conjunction with an information sheet will sent to each person individually, will be taken as consent to participate in this study. Their participation is voluntary.
Further, all elements of the study will be conducted under the strict ethics that govern research with human's in Australia and QUT's research policy. You can download or view a copy at http://www.mopp.qut.edu.au/D/D_06_03.jsp

Any concerns, complaints or queries about the ethical conduct or any other matters of this study, can also be directed to my Research Supervisor, Dr Tricia Fox on 07-3138 3798, or via email at t.fox@qut.edu.au

I welcome your assistance, and look forward to your organisation’s contribution to this important and timely study.

Regards

Joe Campana (Student ID: 06244424)
Master of Education candidate, Canberra
m. 0400 506635
Appendix 3 – Letter of approval from the Director of ACPM

Mr Joe Campana
Master of Education student
Canberra ACT

Dear Mr Campana

With reference to your email dated 5 March 2008 I acknowledge your request for approval to access our student database, in particular graduates from our Diploma of Project Management courses. I understand this information will support your Master’s studies involving exploring the graduates’ awareness and understanding of the soft skills of project management.

I have considered your request and permission is granted for you to access this information. We will be very happy to support you. It sounds like a great thesis topic.

A copy of your approval will be placed on our files. I wish you every success with your studies.

For any further queries regarding your approval, please contact our Client Services Manager, Kate Hassen on 02-92638700.

Yours sincerely

Nicolas West
Director, ACPM
10 March 2008
Appendix 4 – Approval from QUT Ethics Committee

Dear Mr Joe Campana

A UHREC should clearly communicate its decisions about a research proposal to the researcher and the final decision to approve or reject a proposal should be communicated to the researcher in writing. This Approval Certificate serves as your written notice that the proposal has met the requirements of the National Statement on Research Involving Human Participation and has been approved on that basis. You are therefore authorized to commence activities as outlined in your proposal application, subject to any specific and standard conditions detailed in this document.

Within this Approval Certificate are:

* Project Details
* Participant Details
* Conditions of Approval (Specific and Standard)

Researchers should report to the UHREC, via the Research Ethics Officer, events that might affect continued ethical acceptability of the project, including, but not limited to:

(a) serious or unexpected adverse effects on participants; and
(b) proposed significant changes in the conduct, the participant profile or the risks of the proposed research.

Further information regarding your ongoing obligations regarding human based research can be found via the Research Ethics website http://www.research.qut.edu.au/ethics/ or by contacting the Research Ethics Coordinator on 07 3138 2340 or ethicscontact@qut.edu.au.

If any details within this Approval Certificate are incorrect please advise Research Ethics within 10 days of receipt of this certificate.

Research Ethics Officer (on behalf of the Chairperson, UHREC)

Date

---

**Category of Approval:** Confirmed Low Risk

**Approved Until:** 12/05/2011

**Approval Number:** 0800000021

**Project Title:** The 'soft' skills of project management: a view from diploma graduates

**Project Chief Investigator:** Mr Joe Campana

**Other Project Staff/Students:**
Dr Tricia Fox, A/Prof Brian Delahaye

**Experiment Summary:**
Identify any qualifications and project management experience to understand the attitude to commonly held principles and literature within the project management field as it relates to soft skills.

---

**Participant Details**

**Participants:**
Approximately 60-75 Diploma of Project Management graduates

**Location/s of the Work:**
Australian College of Project Management, Canberra
Bibliography


