Training Project Managers:
Increasing Project Managers Team Skills

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Increasing Project Managers Team Skills

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Abstract

This dissertation is for the MSc degree in International Project Management awarded jointly by Chalmers University of Technology, Gothenburg, Sweden, and Northumbria University, Newcastle, England. In the theoretical framework sections of the dissertation current project management and team dynamic literature is reviewed. The empirical data presented were collected through the use of self-administrated questionnaires and semi-structured face-to-face interviews. The research population was a group of 46 project managers in a medium-sized organisation in Gothenburg, Sweden, all of whom had attended a course on team skills. The response rate for the questionnaires was 64%, and ten of the project managers were interviewed. The purpose of this study was to evaluate the consequences (both positive and negative) of an attempt to increase project managers' ability to handle group dynamics and interpersonal processes. The results show that a majority of the respondents had begun to focus more on each individual in their teams as a consequence of the course. By focusing more on each individual the project managers had also begun to change the way they communicated with their team. Thus, many of the project managers who attended the course varied the way they communicated, depending on whom they were communicating with and the purposes of the communication. The results also show that the project managers were inspired by the course initially. Unfortunately, however, most of their new knowledge was forgotten shortly after returning to their respective positions. A distinction can be made here between short-term advantages, i.e. positive mental attitudes that might improve output temporarily, and long-term consequences, i.e. changes in behaviour. Furthermore, this study shows that organisations in which project managers who have attended such courses are working must learn how to fully use their competence capital. Organisations should thoroughly inform the participants of the intentions of the course and how they are expected to use their knowledge when they return to their respective work places. Finally, the trained project managers must have appropriate organisational support if they are to implement what they have learnt and change their organisation as intended.

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1 Introduction

Organisations today operate in an ever-changing environment that requires creative solutions to rapidly-evolving problems, short response times and accurate decisions. Much attention is directed towards the profession of project managers and the way in which they should manage their teams in order to meet their goals and targets. However, although many project management courses are available, there is currently a lack of certainty about the value they add to organisations (Thiry, 2004) in terms of the way they affect project managers and their work methods. The goal of the study underlying this dissertation was to evaluate the effects of a three-day course for project managers in a medium-sized organisation in Gothenburg, Sweden. The organisation is a consultancy firm that specialises in product development and offers customers project management expertise. The input to the research process is the project managers' perceptions about the influence the course had on the way they perform their work. The output is a valuable addition to the current body of knowledge, in terms of a deeper understanding of the complex process that project managers face trying to apply their new knowledge, which is intended to improve the performance of their teams and thus organisational productivity.

1.1 Key question

The objective of this research was to evaluate the consequences (both positive and negative) of the attempt to increase project managers' ability to handle group dynamics and interpersonal processes.

1.2 Parameters of the study

What has been studied in this research is not the actual performance of the project managers who attended the course, but their perceptions of their work. The areas that were studied were identified by reviewing current literature associated with project management and group dynamics, including material on project management in the context of: team dynamics, team development, team norms, team performance, change, communication, implementation of knowledge, and situational leadership.

1.3 Research methods

The study involved 42 people who have participated in the project management training program (level four) in a medium-sized organisation in Gothenburg, Sweden. The training program was conducted on four independent occasions between 2004 and 2006. Due to the limitations constraining this study, the research was performed using a cross-sectional, mixed-methods approach, including both quantitative research, i.e. self-administered questionnaires, and qualitative research, i.e. semi-structured interviews. This was intended to obtain a healthy balance between reliability and validity. Questionnaires including 23 closed-ended questions and 13 open-ended questions were distributed to the whole sample via the company intranet. The response rate to the questionnaire was 64%, and the responses to it were subsequently used to support face-to-face interviews conducted with ten randomly selected participants, i.e. between one and four respondents from each of four training occasions.

The data were analysed using several tools and techniques. The responses from the closed-ended questions were fed into SPSS, to determine the minimum, maximum and mean Likert scores, and their standard deviations for each question. Furthermore, the data were divided into segments related to each of eight topics, and the minimum, maximum and mean Likert scores, and their standard deviations for each topic were determined

Both the open-ended questions of the questionnaires and the interviews were analysed using what Kruuse (1998) calls "analysis by topics", i.e. by breaking down the data into several topics. The same division of topics was applied during the construction and analysis of both the open-ended and closed-ended questions of the questionnaires. As for the interviews, the interview guide used during the interviews was used to disposition the analysis of the interviews.

Regarding the ethical issues related to the chosen methodology, the people involved will, unless otherwise agreed, remain anonymous. The research process was also performed in accordance with existing ethical regulations and moral standards set by the University of Northumbria and Chalmers University of Technology.

1.4   Limitations and delimitations

A number of external factors limited the research project and consequently shaped the research design. Firstly, there was a limitation of time available for the study. The research project had to be completed within 20 weeks, starting from week 36, 2006. Secondly, limitations were imposed in terms of parameters related to the research population, e.g. size and structure, by the features of the organisation chosen for the study.

The external limitations inevitably delimited several aspects of the research design; for example, the size and structure of the research population, which was limited to the project managers who attended the course between May 2004 and June 2006. Furthermore, a large number of project managers managed teams outside of the organisation. This eliminated the possibility of examining the effects the course had on the leadership style in the context of project maturity and team climate.

1.5   Dissertation structure

Apart from the front and back matter (abstract, tables of contents and reference list etc.) this dissertation consists of six chapters. In this, the introductory chapter, the rationale, key question and studied parameters are introduced. Limitations and delimitations constraining the study are also outlined. Chapter two provides a review of current project management and team dynamic literature as a foundation for the later analysis, discussion and conclusions. Chapter three presents further details of the research methods used, i.e. the procedures and sample. In chapter four the results from the questionnaires and interviews are presented and analysed. In chapter five the project managers' perceptions about the course and its consequences are discussed and contextualized using the theories presented in the theoretical framework. Implications for future research are also considered. In chapter six conclusions drawn from the results and discussion are presented.

2 Theoretical framework

The following chapter provides an introduction to current knowledge regarding project managers' role in team performance. The chapter deals with relevant theories related to project management, organisational learning, and team dynamics literature. The consequences of training project managers can be seen from the perspective of the project manager, the organisation, and the team. However, this dissertation focuses on the perspective of the project manager.

2.1 Training project managers

The purposes of training project managers are to enable them to obtain valuable knowledge, spread this knowledge to the surrounding staff and thus change the organisation (James, 2003). Project managers who obtain new leadership skills are likely to encourage greater team reflection and discussion. Furthermore, they tend to see things from a new perspective that promotes new ways of working and makes them more adaptable to changing situations (Hirst et al., 2004). Project managers are likely to influence almost every variable affecting the effectiveness of the team by their decisions and behaviour. They also play an important role in developing the competences within their teams through their feedback, coaching and influencing behaviour. Even in teams with a very high level of democracy, the project manager generally has by far the strongest influence on the characteristics of the team and its work procedures than any other team member. Thus, improving the effectiveness of the project manager should improve the effectiveness of the whole team (Tannenbaum, Salas and Cannon-Bowers, 1996).

2.1.1 Difficulties of training project managers

Training project managers is difficult for at least two reasons. Firstly, the body of knowledge is rather diverse. Secondly, the project management profession is both theoretically and practically oriented. Thus, it is not sufficient for project managers to have abundant theoretical knowledge about methods, tools and techniques. It is more important that they are able to apply these skills in complex and dynamic settings (McCreery, 2003), and that the organisational climate facilitates these endeavours. However, the extensive body of knowledge can be divided into three main areas: human skills, conceptual and organisational skills, and technical skills (El-Sabaa, 2001; Barczak and Wilemon, 1992). Of course, the project manager should be competent in all three areas, but in order to be perceived as a top performer by the senior management, the project manager should have particularly high levels of human skills and concentrate on using them (Crawford, 2005). Some research even shows that project managers' human skills have the most significant influence on their working procedures (El-Sabaa, 2001). In fact, training in human skills, such as interpersonal skills and team building, was most frequently mentioned as being particularly valuable by trainees participating in a study of the development of project managers (Duarte et al., 1995).

2.1.2 Applying knowledge

Studies dating from the 1970s assert that training in group dynamics is generally regarded positively by participating project managers (Jerkedal, 1986). However, their level of motivation prior to the training has a huge impact on how well the participants obtain new competence and their willingness to apply it in their work place (Salas and Cannon-Bowers, 2001). Furthermore, the participants sometimes find it difficult to turn what they have been taught into practice. Many trained project managers want to introduce changes, but as they return to the work place they face an unchanged organisation and are more or less forced to quickly

forget their new knowledge (Jerkedal, 1986). The organisational environment may not even provide opportunities for the participants' to apply their new knowledge (Winfred and Winston, 2003). Leaders who receive training in leadership skills often complain that the lack of time and workplace pressure do not allow them apply their new knowledge (Hirst et al., 2004). One study, for example, found that 18 % of a group of trained project managers claimed that they directly could use their new knowledge in order to develop their fellow team members. 22 % claimed that they could develop the interpersonal processes within their team. However, another study found that participants had only been able to use the experiences gained from the training within their teams to a small extent because the training lacked connections to real problems within the organisation (Jerkedal, 1986). Hence, it is not until after a suitable team organisation has been decided that it is time to begin developing the team through dealing with issues such as motivation, rewards, communication, and teamwork (Lind and Skärvad, 1998). Thus, issues related to external relations should be considered more thoroughly when building teams then they generally are. The focus on intra-team processes is one of the reasons why team development efforts may fail (Sundstrom, De Meuse and Futrell, 1990).

2.2   The use of teams in project management

The following chapter discusses the use of teams within organisations and provides the reader with a basis for the following chapters, which further explore vital aspects of project management. The work of project managers inevitably involves teams.

2.2.1 The role and meaning of teams within an organisation

Diverse definitions of teams and descriptions of their characteristics have been published. However, most authors conclude that a team can be defined as a small number of interdependent individuals (Katzenbach and Smith, 1993; Sundstrom, De Meuse and Futrell, 1990; Lind and Skärvad, 1998; Börjeson, 2001; Ranney and Deck, 1995) with complementing skills (Katzenbach and Smith, 1993; Lind and Skärvad, 1998) who work together (Woodcock, 1979; Lind and Skärvad, 1998; Börjeson, 2001), learn from each other (Börjeson, 2001), are committed to a common purpose (Katzenbach and Smith, 1993; Ranney and Deck, 1995), and hold each other mutually accountable for the outcome of their work (Katzenbach and Smith, 1993; Sundstrom, De Meuse and Futrell, 1990; Ranney and Deck, 1995) in order to achieve more then they can alone (Woodcock, 1979).

Teams are used by organisations as important tools in order to quickly adjust to new and ever-changing demands (Lind and Skärvad, 1998; Nemeth and Owens, 1996; Drach-Zahavy and Somech, 2001). The diversity and broader knowledge of teams than individuals allow them to deal with complex, innovative and unique demands in a changing business environment (Katzenbach and Smith, 1993). The socialisation within teams also plays important roles, especially for introducing newcomers to the organisation and teaching them the organisational culture, norms and values quickly. The use of teams is, hence, the most practical way of spreading an organisational vision and direction throughout an organisation (Katzenbach and Smith, 1993; Boddy, 2002), which is also one of their greatest advantages for the development of the organisation (Boddy, 2002).

2.2.2 Why teams can benefit an organisation

Many advantages are gained by the use of teams. Their complementary and diverse knowledge and skills allow teams to respond more effectively than individuals to change, innovation, quality issues and customer requirements. Organisations furthermore benefit from teams since they are flexible and can more rapidly change their direction of work if necessary

(Katzenbach and Smith, 1993; Aubé and Rousseau, 2005). They are also likely to improve productivity, enhance creativity, trim down response time (Hartenian, 2003), help reduce costs and cycle times, improve quality and accuracy, raise morale (Ranney and Deck, 1995) and improve the decision-making process (Hartenian, 2003; Forsyth, 2006). In addition, teams tend to have more fun: high-performing teams often develop a shared sense of humour which helps the members to deal with the stress and pressure incorporated in their work (Katzenbach and Smith, 1993; Aubé and Rousseau, 2005) and thus reduce rates of absenteeism (Aubé and Rousseau, 2005; Ranney and Deck, 1995).

2.2.3 Why teams can harm an organisation

Teams have more diverse knowledge than individuals, so more inputs are considered and teams take loner to make decisions than single individuals. Thus, teams can take up excessive amounts of the organisation's valuable time (Boddy, 2002). Furthermore teams can develop similar thought patterns, groupthink. In such situations nobody challenges the decisions made and the team members value their unity as a group more highly than their mission (Boddy, 2002). Groupthink is likely to occur in environments where the team displays strong cohesiveness, great loyalty towards the top management, and the tasks should be performed, rather than explored and discussed (Larsen, 2003). Groupthink develops when team members try too hard to agree and consequently make mistakes (Forsyth, 2006). Openness from the project manager is likely to reduce groupthink, since flexible and open behaviour within the team is then rewarded (Aronson, Reilly and Lynn, 2006).

The leaders of both the team and the organisation have a strong responsibility to prevent groupthink developing. The leader of the team must counter premature consensus by encouraging the team to critically evaluate all decisions and show that they can influence the decision-making process (Janis, 1982). The most important step to take in order to prevent groupthink occurring is to create a basic understanding of the phenomenon, and the likely consequences of groupthink (Larsen, 2003; Janis, 1982). When addressing simple problem-solving tasks, groupthink can enhance the efficiency of a team, but when the problem is complex and requires innovative solutions, groupthink can only harm the process (Hart, 1990).

2.3 Project management and team norms

It is important for project managers to know how to handle the informal rules within their team. After working together a while, teams develop a shared sense of identity, belonging, and destiny, i.e. norms. Norms can be described as behavioural expectations. Hence, someone who belongs to a certain group of people is expected to behave in a certain way. How much a certain member of a group is allowed to differ from the norms is usually dependent on their status; a high-status member can differ more from the common norms than a low-status member (Larsen, 2003). A new team member must first accept the norms and distribution of roles within the team before they are fully accepted by the other team members (Forsyth, 2006). A new team member, moreover, brings new norms and expectations to the team which can lead to a time of arguments, disagreements and misunderstandings, but also provide an opportunity for project managers to change current norms. Furthermore, norms commonly emerge and change over time as the team develops (Larsen, 2003).

2.3.1 How norms affect teams

Effective teams share a mutual understanding and agreement regarding the values, norms and rules within the team (Sundstrom, De Meuse and Futrell, 1990; Boddy, 2002), which means that they constantly assess how their team performs and reflect on how to develop the team's working procedures to improve performance on future tasks (Boddy, 2002). However, norms

that are too standardised can be fatal to teams, since this causes groupthink, which can lead to a series of bad decisions since no one challenges the correctness of the decisions any more (Larsen, 2003). In fact a team may e a liability for an organisation, rather than an asset if the team norms do not promote high productivity (Forsyth, 2006). However, encouragement by the team manager for team members to work hard tends to increase team effectiveness (Zaccaro, Rittman and Marks, 2001).

2.3.2 The influence of the project manager on team norms

Due to the huge impact of teamwork behaviour on team performance (Aronson, Reilly and Lynn, 2006), the project managers must establish acceptable ways for the team members to interact in order to facilitate effective teamwork (Zaccaro, Rittman and Marks, 2001). The behaviour of the project manager can, however, either improve or obstruct team performance (Aronson, Reilly and Lynn, 2006). For example, project managers can strongly influence norms by encouraging or suppressing communication (Hirst et al., 2004).

Zaccaro, Rittman and Marks (2001) suggest that project managers have a huge influence when the norms of the team are created, therefore they can direct the behaviour of the group to some degree, promoting certain norms. Hence, the project manager has to show the team members what is acceptable and unacceptable in specific situations by their own attitudes and behaviour (Briner, Hastings and Geddes, 2004). In addition project managers can often influence member through their persuasive skills (Rosen, 1989). It has also been suggested that project managers should constantly try to change and manipulate the project environment to promote desired behaviour among team members. This is because teamwork rarely develops by itself; the project manager has to take action in order to create an environment that emphasises trust, creativity and collaboration (Aronson, Reilly and Lynn, 2006; Tampoe and Thurloway, 1993).

However, Alvesson (2001) claims that project managers cannot shape or alter the norms of a team completely according to their own preferences and aspirations. In effect, they negotiate rather than force new or reviewed preferences on team members, and they are often more influences by their context and the associated norms than actively influencing it themselves. Hence, the actions of the project manager may have to be adjusted to fit the norms that apply to those who are supposed to be led. Furthermore, it is not unusual for the norms of project managers to lie somewhere between those of the senior management and the team they are supposed to manage (Alvesson, 2001).

2.4 Project managers' role in teams' performance

The number of professional project managers has increased over time since more and more organisations use projects as a way to reach their business goals. This has led to increased attention being paid to the knowledge of project managers, since their knowledge and behaviour are seen to have a major impact on project performance (Crawford, 2005).

2.4.1 Project managers' personality

The personality of the project manager, as well as his/her knowledge is known to affect the dynamics of the team, which in turn affects team performance (Peterson et al., 2003). For example, project managers who have a charismatic personality, and sacrifice personal interests in order to work hard for the goals of the team, are likely to improve the cooperation within teams (De Cremer and van Knippenberg, 2002). The personality of project managers is likely to impact the performance of the team to a great extent, studies shows that the effect can be as much as 50 %. However, the organisational context plays an important role in determining the

leadership personalities that are essential for team success (Peterson et al., 2003). Furthermore, individuals have a basic need to belong to a group. Thus, if project managers ensure that their team members experience belongingness, cooperation is likely to be enhanced within the team (De Cremer and van Knippenberg, 2002).

2.4.2 Project managers' behaviour

The ways in which the leader of a team behaves reveal their priorities. Furthermore, their behaviour shapes the psychological climate of the team members and consequently the climate of the team in ways that emphasise the priorities of the project manager (Dragoni, 2005). One way for project managers to ensure team cooperation is to reward preferred behaviours and actions, and punish unwanted behaviours and actions. This approach works to some extent, but is likely to weaken the team members' motivation. However, through fair or unfair treatment the leader can communicate a team member's position within a team. Fair treatment signals respect and belongingness, whereas unfair treatment signals lack of respect and implies that the member has an insignificant role within the team. Fair treatment therefore encourages the team members to adopt behavioural patterns that nourish teamwork (De Cremer and van Knippenberg, 2002).

The ability to exchange information, ideas and opinions is one of the basic requirements for effective teamwork (Hirst et al., 2004; Hersey, Blanchard and Johnson, 2001), thus project managers need of effective channels of communication (Boddy, 2002). It is therefore important for project managers to be able to engage in active listening in order to become effective communicators. Being able to listen effectively is considered to be a key element of successful management (Hersey, Blanchard and Johnson, 2001). In fact, team communication is a reliable predictor of team performance (Hirst et al., 2004).

2.5 Building knowledge through project managers

Training and continuous development of employees is becoming increasingly vital for organisations to remain competitive (Salas and Cannon-Bowers, 2001). By enhancing the productivity and quality of the work of individuals they aim not only to improve their market position, but also to communicate the organisational vision and goals to their employees (Winfred and Winston, 2003). Hence, competence development is a vital component in order for organisations to ensure their competitiveness, especially within dynamic and fast changing business environments (Suikki, Tromstedt and Haapasalo, 2006; James, 2003; Bunderson and Sutcliffe, 2003). The need for competence development is especially high in organisational contexts that are dynamic and require members to collaborate in order to solve tasks successfully (Stout, Salas and Fowlkes, 1997). However, the competence development of project managers is often prioritised over that of team members. Thus, improved knowledge of project managers is presumed to improve team performance and consequently organisational productivity (Lenéer-Axelsson and Thylefors, 1998). The training should focus on encouraging collaborative learning and achievement of team goals (Hartenian, 2003). If the project manager creates an environment that facilitates information flow and experimentation, the organisation is likely to grow more strongly than would otherwise be the case. Thus, learning in organisations depends both on providing employees with the right knowledge and skills and on creating an environment that facilitates and encourages knowledge sharing (Jones and Macpherson, 2006).

Encouragement of learning by the project manager is believed to enhance the performance of a team (Bunderson and Sutcliffe, 2003; Zaccaro, Rittman and Marks, 2001). However, learning activities divert attention away from routine work, and over-emphasis on learning activi-

ties leads to reductions in performance. When the project manager over-emphasises learning, the team can find it has more alternatives than it can handle, whereas when the project manager under-emphasises learning, the team is not capable of generating an appropriate number of alternatives (Bunderson and Sutcliffe, 2003).

The competence development of project managers is intended to enhance their teams' collective knowledge in team processes and consequently enhance their performance (Tannenbaum, Salas and Cannon-Bowers, 1996; Sonnentag, 1996). The effectiveness of the team is believed to be maximal if the project manager manages to create a shared understanding of the task, roles and competences that exists within the team (Tannenbaum, Salas and Cannon-Bowers, 1996). However, training in interpersonal skills should preferably be provided at a team level, rather than only for project managers (Salas and Cannon-Bowers, 2001). If the project managers manage to spread their new knowledge in interpersonal skills and teamwork to the entire team, the training often results in improved communication, cohesion and productivity (Sundstrom, De Meuse and Futrell, 1990). Besides providing wider knowledge of methods and terminology, training in group processes and group dynamics also gives the project managers a chance to critically evaluate their current working procedures and to exchange experiences with colleagues from other teams within the organisation (Zika-Viktorsson, 2002).

For a long time training within organisations has focused on improving the technical skills of individuals. However, to foster broad competence in today's team-centred organisations, both the project managers and team members must also understand the ways in which they interrelate with others and how they can improve their collaborative relationships (Hirschfeld et al., 2006). Even if training efforts start at an individual level, the organisation should make sure that collective learning is facilitated by creating an environment that encourages knowledge sharing (Jones and Macpherson, 2006). Unless effectively communicated throughout the organisation, individual training is irrelevant for organisations. Teamwork should be the primary tool for this communication (Castka et al., 2001).

From the perspective of behavioural science two ways to improve the performance of a team can be highlighted. One is to improve the interpersonal processes within the team and the other is to try to create a team with well-balanced roles. Methods used to improve interpersonal processes focus on clarifying and creating commitment to the team's goals and objectives, developing the relations within the team, improving cooperation and communication skills, promoting better ways to resolve conflicts and giving feedback in a constructive and positive manner. The main focus, however, lies in improving the interpersonal relations and the social interactions so the members can act with mutual respect, openness, honesty and trust. The methods used to create a team with well-balanced roles spring from the diversity of persons and personalities in our society. If a team is composed of persons who complement each other's strengths and weaknesses it is believed to increase the performance of the team (Lind and Skärvad, 1998).

2.6 Managing team composition

Increasing efforts are being invested within organisations to address the ideal composition of their teams to ensure project success. Team members' behaviour is mapped, as well as the way in which different members manage to collaborate (Sommerville and Dalziel, 1998). Appropriate team composition and dynamics are vital for ensuring performance during the course of an entire project. The project manager plays a vital role in this. The project manager has to properly assess and successfully combine the components that will lead to project success (Ranney and Deck, 1995). Hence, a successful project manager has to properly identify

the contribution of each individual team member and manage to combine their contributions throughout the team's life cycle to ensure that the team performs well (Zaccaro, Rittman and Marks, 2001).

2.6.1 Managing heterogeneous and homogeneous teams

The composition of a team can be either homogeneous, i.e. all of its members are relatively similar in terms of education, age, sex, experience, values and cultural background, or heterogeneous, i.e. its members may be diverse, and capable of challenging and energising each other, but with the obvious risk of disagreements (Larsen, 2003). Whether a project manager should choose a heterogeneous or homogeneous team composition depends on the nature of the task (Larsen, 2003; Higgs, Plewnia and Ploch, 2005). Homogeneous teams are likely to have lower potential for conflicts, greater team cohesiveness and better communication, but also a lower level of creativity. Conversely, heterogeneous teams are likely to have higher levels of conflict and less effective communication, but also a high level of creativity (Higgs, Plewnia and Ploch, 2005). Heterogeneous teams therefore outperform homogeneous teams when tackling tasks that require creativity, intelligence, creation of alternative solutions and effective decision making (Guzzo and Dickson, 1996). In fact, the level of innovation within a team is highly dependent on its level of heterogeneity. However, the interaction processes within a team have greater influence on innovation than the level of heterogeneity (Drach-Zahavy and Somech, 2001). The relationship between the behaviour of a project manager and team satisfaction is quite strong when the team is homogeneous; the more diverse a team is, the less likely there is to be a strong relationship between team satisfaction and the project manager's behaviour (Yukl, 1971). Furthermore, the project manager has great influence on team performance through providing the team members with boundaries and facilitating creative thinking (Barczak and Wilemon, 1992).

Teams composed of members who are already familiar with one another initially perform their work more effectively than teams composed of complete strangers (Guzzo and Dickson, 1996). Furthermore, such teams find ways to operate that suit everyone more quickly than other teams (Blebin, 1981). However, the advantages of member familiarity decline over time to such a degree that it becomes devastating to team effectiveness after two to three years. This also applies to teams who have remained intact since they were initially composed, even if they were unfamiliar with each other at first (Guzzo and Dickson, 1996).

2.6.2 Managing the balance of the team

A functioning team needs a healthy balance of team members that focus on the task, i.e. initiating tasks, getting the job done and meeting deadlines, team members that emphasise maintenance, i.e. confronting others in order to keep the peace and keep the group together (Boddy, 2002; Katzenbach and Smith, 1993; Ranney and Deck, 1995), and team members who represent the interest of the client (Ranney and Deck, 1995). The interpersonal play is facilitated if the members in a team can adopt certain roles. This makes everyday life a little more predictable and creates a certain flow (Lenéer-Axelsson and Thylefors, 1998). In order for the team members to accurately obtain an understanding of the scope of the task, and their expected contribution, the project manager has to clearly establish the roles and behaviour patterns required of each individual (Zaccaro, Rittman and Marks, 2001). However, there are both formal roles, i.e. job-description, and informal roles within a team. In both cases the team members has expectations on each other as well as the role, both of themselves and from others (Larsen, 2003). Therefore, a project manager should focus on clarifying differences in roles and responsibilities in order to minimize conflicts (Hirst et al., 2004). The dynamics within a team can be influenced by two opposite personalities, or roles, i.e. confronting roles

and passive roles. The confronting role wants to initiate a behaviour, but do not want to be the recipient, the passive role wants to receive a behaviour, but do not want to initiate it. Confronting incompatibility is often quite obvious and leads to confrontations and power struggles. Passive incompatibility is hidden and hard to discover, its result is that nothing is done in time because someone else is always assumed to take action (Schutz, 1997). Project managers can, however, influence the characteristics of the team by choosing the individuals they include in the team (Zaccaro, Rittman and Marks 2001).

According to Katzenbach and Smith (1993) the main focus when composing a team should be on finding the right skills rather than the right personalities. However, this assertion is opposed by many researchers (e.g. Rapp Ricciardi and Schaller, 2005; Margerison, 2001; Belbin, 1981), who instead suggest that teams, besides complementing skills, mainly need complementary personalities in order to become high-performing and that individual competence should not be valued more highly than team competence (Margerison, 2001). The competence of an individual should hence be considered in the context of what is best for the project (Margerison, 2001). Belbin (1981) states that; "teams are a question of balance. What is needed is not well balanced individuals but individuals who balance well with one another" (Belbin, 1981, pp 77). Nine competence areas have been identified, all of which have to be covered in order for teams to succeed. Collectively, the team has to be able to; assemble and report data, generate and experiment with new ideas, investigate opportunities, assess and examine new methods, organise how things will work, produce outputs, manage and review the working systems, maintain and preserve standards and processes, and coordinate and integrate with others. It has been shown that if these nine areas are covered, the competence requirements will be fulfilled, but this does not necessarily mean that the project manager has composed an effective team. In order to be effective, the project manager also has to establish the objectives, priorities, time management allocations, and performance assessments within each of the nine areas (Margerison, 2001). The balance of competences however depends entirely on the task to be performed (Belbin, 1981).

Besides the nine competence areas identified by Margerison (2001), Belbin (1981) identifies eight types of roles that are useful in teams. These roles are called: company worker, chairman, shaper, plant, resource investigator, monitor evaluator, team worker, and completer finisher. All of these roles have unique strengths and weaknesses, which may or may not benefit a project, depending on the nature of the task and the number of team members. A team containing these eight roles should be able to deal with any type of challenge. However, it is not essential to cover all eight roles in order to create a successful team, as long as the team is well balanced. Furthermore, the roles that people adopt can shift according to circumstances. For instance, a project manager who took the Belbin-test several times was designated a "company worker" on one occasion and a "chairman" on another occasion. In other words, his/her role changed as a result of the team and organisational setting (Rapp Ricciardi and Schaller, 2005). Furthermore, a certain role within a team often outlives the person who initially had the role; once a person leaves a team a new team member takes over their role. How people act and behave in certain roles is determined by the nature and characteristics of the role rather than their own preferences. However, members can challenge their current roles and move in and out of different roles, for instance a person who wants to influence others can challenge the role of the leader (Forsyth, 2006). Conflicts between roles can be either beneficial or obstructive. One of the benefits of conflicts of roles is that the boundaries between different roles are clarified (Larsen, 2003). The team members are likely to be less affected by stress if the project manager is able to create a supportive environment in which the

team members know what to do and there is clarity about team roles (Zaccaro, Rittman and Marks, 2001).

The complexity that diversity brings means that project managers will never be able to manage diverse teams solely by following a few golden rules. Thus, project managers have to be prepared to experiment and respond to feedback they receive from the team members (Jackson, 1996). However, it has been shown that poor role fits and vagueness about roles lead to reductions in satisfaction and productivity within a team (Forsyth, 2006). An indicator of confusion in roles is if a job is being done twice or not at all (Woodcock, 1979).

An interesting conclusion that Belbin (1981) drew from his research was that behaviour, rather than intelligence, affects how well teams perform. However, it is extremely difficult, if not impossible, for project managers to compose a perfectly balanced team, although if a team is composed of people that are loyal to the team, out-going, mentally strong and disciplined it is likely to perform well (Belbin, 1981). In fact, the balance of team roles will have little importance as long as the team members are well motivated and committed to the mission, because the members will sub-consciously fill the roles that are missing (Boddy, 2002).

2.6.3 Managing team composition over time

The project manager must make sure that the composition of the team reflects the requirements of the team, which naturally changes over time (Eskerod and Stilling Blichfeldt, 2005). Thus, roles and behavioural patterns change during the life cycle of a team, which has an impact on the team dynamics. Project managers therefore have to adjust team roles during the life cycle of the project (Rapp Ricciardi and Schaller, 2005). Any change in team composition may harm the project and the cohesiveness within the team, since they cause more time to be spent on team development processes than actual project work (Eskerod and Stilling Blichfeldt, 2005). However, the project manager should ensure that team dynamics are appropriate throughout the life cycle of the team (Ranney and Deck, 1995). These situations are complex due to the high demands of teaching the members new values, working procedures and appropriate behaviour (Lind and Skärvad, 1998).

2.7 Project managers' handling of the life cycle of teams

A project manager should know that all teams move through a life cycle with a beginning, a body and an end, most obvious is this in project teams which only operate within a short amount of time (Larsen, 2003). Furthermore, the behaviour of teams is sequential and can be described as an expression of the teams' experience, as well as their responses to the changes affecting them (McGrath and O'Connor, 1996). However, teams move back and forth between the sequences of the life cycle due to replacement of team members, and the introduction of new technology or new routines. The life cycle model should, however, provide a reminder for project managers that motivational, attitudinal, and behavioural processes within a team constantly change as the team develops (Rosen, 1989).

The influence of the project manager is greatest early in the life cycle of teams, mainly because project managers themselves tend to be more effective at that time. Furthermore, the initial effectiveness of the project manager is connected to the later performance of the team (Zaccaro, Rittman and Marks, 2001). Hence, the project manager is one of the forces that unifies team members' efforts (Aronson, Reilly and Lynn, 2006). Since different problems arise and the level of member acceptability to change and help varies during the team's life cycle, different management approaches have to be adopted throughout the team's development in order to meet the needs of the team (Rosen, 1989). It is, for example, important for the project

manager to structure the team and task at the beginning of the team's life cycle (Zaccaro, Rittman and Marks, 2001). The project manager should initially also try to avoid high levels of cohesion and conformity pressure, since pressure to conform can hinder experimentation and lead to premature decisions (Rosen, 1989). As teams become more experienced and oriented in the task, the project manager needs to display more supportive behaviour. When teams move from orientating themselves to focusing more on performance, the project manager has to shift focus towards facilitating team self-management. As the team becomes more effective and high performing, the project manager does not have to pay so much attention to directing individual team members' actions, but should instead focus on fostering effective team self-management (Zaccaro, Rittman and Marks, 2001). The performance of the team is a result of how well the manager handles the difficult task of obtaining an appropriate level of cohesion at all times (Rosen, 1989).

2.7.1 Sequential development theory

There are many descriptions of the number and characteristics of the sequential stages, or phases, of a team's life cycle. Rosen (1989), for example, suggests that teams normally pass through seven phases: the pre-assembly, assembly, organisation, learning, team work, closing ranks, and stagnation phases. Lacoursiere (1980) suggests that most teams go through a sequence of five developmental stages in their lifetime: the orientation (or negative orientation), dissatisfaction, resolution, production, and termination stages. Lenéer-Axelsson and Thylefors (1998) suggest that teams are likely to pass through seven phases during their life cycle: the initial, honeymoon, integration, conflict, platform and regression, maturity, and separation phases. However, the most widely adopted description is the one presented by Tuckman (1965), which describe the following developmental sequences within small groups: forming, storming, norming, and performing, to which Tuckman and Jensen (1977) later added adjourning. A project manager who understands the stage their team is currently in, how they got there, and how the team is functioning in the present stage can make better informed decisions than a manager who lacks this insight (Rosen, 1989). The model presented by Tuckman (1965) and developed by Tuckman and Jensen (1977) will be used as a framework to explain the various theories concerning the sequential life cycle development of teams.

During the first sequence in the team development cycle, forming, the members are quite eager to get started and have positive expectations of what they will encounter (Lacoursiere, 1980). At the same time they are a little anxious and nervous as they try to orient themselves and find out what the task will bring, what the leader will do and who the other members are (Tuckman, 1965; Lacoursiere, 1980; Lenéer-Axelsson and Thylefors, 1998). The communication is shallow (Lenéer-Axelsson and Thylefors, 1998) and the amount of work produced is quite moderate since a lot of energy is spent on obtaining personal needs instead of working towards the goals of the group (Lacoursiere, 1980; Lenéer-Axelsson and Thylefors, 1998). The manager must therefore step in and establish some sort of structure and cohesiveness (Lenéer-Axelsson and Thylefors, 1998). In contrast, Lacoursiere (1980) identifies a different scenario to that described above, called the negative orientation stage, which occurs when members are in some way forced to participate. Instead of eagerness to get started, this scenario is characterised by hostility and resistance. The amount of work produced is low but the stage will still blend in to the succeeding stages in the same way as the initial sequence normally would. The reality is though probably a mixture of individuals who are resistant and eager to get started (Lacoursiere, 1980).

The second sequence in the team development cycle, storming, is characterised by disappointment and frustration towards the leader, the task and the fellow team members (Tuck-

man, 1965; Lacoursiere, 1980). Thus, conflicts will appear as the differences between the parties arise and are recognised (Lenéer-Axelsson and Thylefors, 1998). The frustration is also a consequence of the members realising that the reality does not match their initial positive expectations (Lacoursiere, 1980). However, the conflicts will have a unifying effect on the team as a whole if dealt with properly by the project manager (Lenéer-Axelsson and Thylefors, 1998). Some teams, on the other hand, become so full of frustration and negativity that they never actually pass through this sequence. In contrast, in some, very rare, cases, this sequence will have little effect on teams and be almost undetectable (Lacoursiere, 1980). However, absence of conflict is often a sign of anxiety and indifference rather than of strength and maturity (Lenéer-Axelsson and Thylefors, 1998).

When resistance has been overcome, the team enters the third sequence in their development cycle, norming. Team members start to express intimate and personal opinions (Tuckman, 1965), and common norms start to develop (Lacoursiere, 1980). This can sometimes feel like a step back in the team development cycle (Lenéer-Axelsson and Thylefors, 1998), but in time the team becomes more cohesive and the work rate slightly increases (Lacoursiere, 1980).

The fourth sequence in the team development cycle, performing, is characterised by a high level of work (Tuckman, 1965; Lacoursiere, 1980), mutual respect for each other's personality and work (Lenéer-Axelsson and Thylefors, 1998), and flexibility and functionality in team roles (Tuckman, 1965). Everyone is capable of working independently (Lenéer-Axelsson and Thylefors, 1998), but still experiences a strong sense of belonging with the rest of the team members (Lacoursiere, 1980; Lenéer-Axelsson and Thylefors, 1998). This boosts satisfaction among the members, which increases the efficient use of time (Lacoursiere, 1980), more time is spent on the task and less time struggling with colleagues, the leader, or the task itself (Tuckman, 1965; Lacoursiere, 1980). It is however important for the project manager to remember that the efficiency of a team is never static, but is continuously influenced by the environment (Lenéer-Axelsson and Thylefors, 1998).

The nature of the fifth and final sequence in the development cycle of a team, adjourning (Tuckman and Jensen, 1977), depends on the reason for the team's termination, and emotions expressed in this phase may range from bitterness, grief, aggressiveness, happiness or relief (Lenéer-Axelsson and Thylefors, 1998). However, in high-achieving groups, positive feelings of accomplishment are likely to exceed the negative feelings of loss (Lacoursiere, 1980).

The length of the developmental sequences varies from team to team and not all teams progress smoothly between them. Some teams get stuck in early stages and never manage to become unstuck (Rosen, 1989). However, the time spent in each sequence can be modified by changes in group composition, the duration of the group and the nature of the task (Tuckman, 1965). For example, if the team is composed of highly professional and experienced members, the team can develop more quickly (Larsen, 2003).

2.7.2 Punctuated equilibrium theory

Cooperation within ever-changing, task-oriented project teams is basically a product of planning and administration. The classical view of the way teams evolve through a series of sequential stages might therefore have to be revised in order to explain the development of specific project teams. The behaviour within project teams is often shaped by the nature of the task rather than evolved through a natural development sequence. The task itself and the plan of action act as unifiers and regulators of the behaviour within the group (Zika-Viktorsson,

2002). Thus, it is appropriate to consider an alternative view suggested by Gersick (1988), which proposes that teams progress through an alternation of long stable phases and short periods of revolutionary change.

The model presented by Gersick (1988) is called "punctuated equilibrium", since it suggests that teams work in long phases of equilibrium punctuated by shorter periods of dramatic change. The model shows that teams immediately determine how to deal with a task. The choice of initial approach is made almost as soon as the team is composed and is influenced by the team members' expectations of the other members, the task, and the contextual factors. This approach is then consistent throughout the first half of the project, which is called phase 1. When teams approach the calendar midpoint of the project they display anxiety about finishing on time. They compare their current position to where they ought to be, in the light of their increased knowledge about the nature of the task and possible ways to solve the problem. Accordingly, they take action and change the approach dramatically (this is called the midpoint transition), and progress into phase 2 is made by either abandoning or completing phase 1. The organisational context and external influences play important roles in the choice of future approach. When the team has past the midpoint and made the change, it is highly unlikely that they will alter their approach another time. In phase 2, teams focus on solving task-related problems and do not spend time on fixing intra-group problems. As the project move towards its end, teams stop generating new material and focus on preparing existing material for external use and external influences once again have a major influence on the work of the team. In the completion phase, the teams increasingly express positive or negative opinions about each other's personality and performance. As mentioned above, the external environment plays an important role in the team's development at three major points: the design of the team, the calendar midpoint, and the completion of the project. Conversely, during phases 1 and 2 teams are not significantly influenced by the external context (Gersick, 1988).

In contrast to Gersick (1988), Lacoursiere (1980) has asserted that the effects of external influences are marginal and less important to team development. However, Lacoursiere (1980) also states that project managers should be aware that their team members are affected not only by the development of their current team, but also by other groupings at work and at home. The different development stages and their effects can sometimes interact significantly and affect the behaviour and feelings of an individual (Lacoursiere, 1980).

2.8 Leadership and organisational change

It is easier for project managers to experiment and make changes at an early stage of a project as the norms and behavioural patterns of the team have not been fully established, and resistance to change or new ideas has not yet grown strong. The change implementation process becomes slower as a group gets older (Lenéer-Axelsson and Thylefors, 1998). However, there is no ideal way for project managers to approach change implementation; the most appropriate change strategy depends on the situation (Hersey, Blanchard and Johnson, 2001). Nevertheless, change can seldom be implemented in just one part of the organisation without having at least some effect on the entire system (Lenéer-Axelsson and Thylefors, 1998). Project managers should use a participative approach to change when dealing with teams that actively seek responsibility and that have some knowledge concerning the change proposed, but they should adapt a directive approach when dealing with teams that are unwilling to take any initiatives unless forced (Hersey, Blanchard and Johnson, 2001).

2.8.1 Reactions to change

The way in which a team reacts to change is affected by many factors, e.g. where and under what circumstances the change is initiated. Changes that originate from a higher level within the organisation, or from outside of it, are often received with great suspicion. It is very important for the project manager to create a culture within the team that allows everyone to express and deal with their concerns about the consequences of the change. In this way some unnecessary resistance can be avoided (Lenéer-Axelsson and Thylefors, 1998). Project managers have to properly support their team members when the team is exposed to change. The support and acknowledgement of employee needs have great influence on the way the employees perceive the approaching change (Rafferty and Griffin, 2006). Change causes both psychological and physical strains. Thus, individuals who need a high-level of revitalisation and stimulation in their work accept change more readily than others. Less flexible persons are unwilling to change since a change in working processes implies that previous practices have been incorrect (Oreg, 2003).

What project managers consider as best from an organisational point of view is not always in the interest of the individual who is supposed to change, which is a cause of resistance. Even if the interest of the organisation and the interest of the individual coincide, the individual may still resist the change. Furthermore, individuals tend to oppose change since the change process involves more work in the short term. Even individuals who feel positive about the effects of the change itself can oppose the change process simply because of the added workload (Oreg, 2003). Thus, employees are highly concerned about the effects that a change process may have on themselves, their tasks, and their surroundings (Rafferty and Griffin, 2006; Oreg, 2003; Lenéer-Axelsson and Thylefors, 1998). Change processes that are new to people therefore often cause anxiety and resistance since the change will require them to modify their own work procedures, beliefs and behaviour. Hence, the change process produces new situations in which new activities and behaviours are rewarded, resulting in employee uncertainty (Lick, 2006). Having to develop new ways of dealing with things may trigger stress symptoms (Oreg, 2003). If the change process has been thoroughly planned and discussed within the organisation, it tends to ease the employees concerns and increase their well-being (Rafferty and Griffin, 2006), especially if the employees have been involved in the decision-making process (Oreg, 2003; Lenéer-Axelsson and Thylefors, 1998). Most persons feel positive about change if they can initiate it themselves (Lenéer-Axelsson and Thylefors, 1998). However, the fear of change is not as great within a collective team as in a single individual who is essentially left on his/her own (Katzenbach and Smith, 1993). The more the employees know and understand a change process, the more readily they accept it. Any change effort must therefore be preceded by an introductory learning effort (Lick, 2006).

2.9 Project managers' use of situational leadership

Hersey, Blanchard and Johnson (2001) have developed a framework, called situational leadership, to facilitate project managers' and other leaders' choice of appropriate approach when dealing with teams. Use of the framework is, according to the creators, likely to increase the performance of both the project manager and the team. The model is based on Lacoursiere's (1980) model of team development (Graeff, 1997). According to the situational leadership model there is no single best way to influence a team. However, a vital part of situational leadership is team development, because if the interest of the team is not considered at all times it is easy to justify the use of any leadership approach, even if it is not the most appropriate (Hersey, Blanchard and Johnson, 2001).

2.9.1 Application of situational leadership

The model is based on a combination of leader task (directive) behaviour, leader relationship (supportive) behaviour and the readiness/maturity of team members to perform a certain task (Hersey, Blanchard and Johnson, 2001). However, there is no general consensus regarding the number of dimensions that influence the preferred leadership style (Rosen, 1989). The leader behaviour aspect resembles the classical continuum model of leadership styles, with authoritarian leadership at one end and democratic leadership at the other end. The authoritarian manager makes decisions alone and announces them, while the democratic manager allows the team members to perform within the environment set by the manager (Cole, 2004; Rosen, 1989). Leader task (directive) behaviour is the extent to which a leader directs his/her team in terms of what to do, when to do it and who is to do it. Leader relationship (supportive) behaviour is the extent to which the leader engages in facilitating and supportive behaviours. The readiness/maturity of the team refers to the willingness and ability of a team member to perform a task, willingness being the level of commitment and motivation to perform the task whereas ability is the knowledge, skills and experience of the members (Hersey, Blanchard and Johnson, 2001). Rosen (1989) has identified three leadership style dimensions: authoritarian vs. democratic, employee-centred vs. work-centred, and rewarding vs. punishing. These three dimensions refer to the behaviour patterns that a project manager exhibits in any decision making or management situation.

Four appropriate leadership approaches have been presented by Hersey, Blanchard and Johnson (2001) in the situational leadership model. Firstly, high task behaviour and low relationship behaviour is appropriate when the team members show low levels of readiness/maturity. This setting requires the leader to adopt a guiding, telling, and directing approach. Secondly, high task behaviour and high relationship behaviour is appropriate when the team members show low to moderate levels of readiness/maturity. This setting requires the leader to adopt an explaining, selling, and persuading approach. Thirdly, low task behaviour and high relationship behaviour is appropriate when the team members show moderate to high levels of readiness/maturity. This setting requires the leader to adopt an encouraging, participating, and problem-solving approach. Fourthly, low task behaviour and low relationship behaviour is appropriate when the team members show high levels of readiness/maturity. This setting requires the leader to adopt an observing, delegating, and monitoring approach (Hersey, Blanchard and Johnson, 2001).

2.9.2 Criticism of the situational leadership model

The situational leadership concept presented by Hersey, Blanchard and Johnson (2001) has been widely criticised. Furthermore, although many leadership development courses apply the situational leadership model, the theory concerning the applicability of the model is somewhat insubstantial (Fernandez and Vecchio, 1997). The creators suggest that the concept is applicable in any organisational setting where leaders are trying to influence others (Hersey, Blanchard and Johnson, 2001), but anyone trying to apply the model may encounter conflicting guidelines for the same situation depending on the version of the model they use. However, the greatest problem associated with the situational leadership model may be the lack of theoretical foundation for the suggested relationships between its variables (Graeff, 1997). The theory of situational leadership is even considered to lack certainty in terms of validity and utility (Fernandez and Vecchio, 1997), and furthermore it contains several logical inconsistencies in the form of contradictory statements (Graeff, 1997).

3   Research methods

The following chapter describes the research sample, the manner in which this study was conducted, and the ways in which the data were collected and analysed.

3.1   Research design

Due to the limitations constraining this study, a cross-sectional, mixed-method approach was used, involving both quantitative research, i.e. self-administered questionnaires, and qualitative research, i.e. semi-structured interviews, in order to obtain a balance between reliability and validity. The objective was to investigate how a course in team skills for project managers influenced the way in which they perceived and managed group dynamics and interpersonal processes. Since the course had already taken place, there was no possibility to undertake longitudinal observations. The data therefore had to be collected by asking the project managers how they perceived their situation before and after the course.

3.2   Research procedures

Primary data were gathered using self-administrated questionnaires containing both closed-ended and open-ended questions, and semi-structured interviews. The questionnaires were distributed via the intranet to the whole sample, whereas face-to-face interviews were held with ten persons from the sample.

Self-administered questionnaires were used in addition to interviews in an attempt to reduce the researcher's direct influence on the respondents. According to Gill and Johnson (1997) this choice increases the reliability of the results.

The closed-ended questions included in the questionnaires allowed responses in six-point interval scales, i.e. Likert scales, ranging from negative to positive choice of opinion. Six-point scales were chosen because psychological research has shown that respondents have difficulties to make reliable distinctions between more then seven points (Weisberg, Krosnick and Bowen, 1996), while fewer choices reduces the number of ways to answer the question, forcing the respondents to choose answers that may not reflect their opinions (Weisberg, Krosnick and Bowen, 1996). The advantages of gathering data through closed-ended questions are the ease for the respondents to reply to the questions, the ease of analysing the answers, and the compatibility of the answers. However, there are also disadvantages, including the possibility that respondents may misinterpret the questions, and the fact that the answers do not reflect the respondents' own words.

The open-ended questions included in the questionnaires were intended to extract the respondents' interpretation of their situation and facilitate the following set of interviews. However, when interpreting the responses, one must consider the low level of reliability due to the diversity of answers given, and the demanding task of analysing the responses. Part of the reason for not merely performing interviews, which would have been likely to give maximum depth, was that according to Fowler (2002) questionnaires facilitate openness from the respondents since they do not have to share their opinion with anyone else; their thoughts and beliefs remain undoubtedly anonymous.

When designing the questionnaires, concern was taken to ensure that the phrasing of the questions would not guide the participants to answer in any particular way. Sapsford (1999) states that the respondents are easily tempted to answer the questions in the way they assume is the

"correct" way instead of revealing their true perception. In addition, the questionnaire included a set of questions that explored the same topics, but with variations in the use of words. This increases reliability (Fowler, 1995; Weisberg, Krosnick and Bowen, 1996) and ensures that the wording does not influence the answer as much as if only one question is used (Weisberg, Krosnick and Bowen, 1996).

The semi-structured interviews gave both the researcher and some of the respondents a chance to probe the issues with a shared opportunity for clarification. However, the diversity of answers further complicated analysis of the responses.

3.3   Research sample

The research sample was composed of 42 people who had participated in a project management course (level four) at a medium-sized organisation in Gothenburg, Sweden. The respondents participated in the course on four separate occasions, between May 2004 and June 2006. The questionnaires were distributed to the whole sample, whereas interviews were conducted with ten randomly selected participants, i.e. between one and four respondents from each training occasion.

3.4   Data analysis

Several tools and techniques were used to thoroughly analyse the collected data. The first step was to analyse the results from the first part of the self-administered questionnaire, i.e. the closed-ended questions, which had a response rate of 64%. In order to perform univariate analysis, and obtain indications of the variability of the responses, the responses were fed into SPSS, to determine the minimum, maximum and mean Likert scores, and their standard deviations for each questions. Each of the eight specific areas, and the area of general issues, presented in Table 1 was then examined in the same manner.

Both the open-ended questions of the questionnaires and the interviews were analysed using what Kruuse (1998) calls "analysis by topics", i.e. by breaking down the data into several topics. The same division of topics was applied during the construction and analysis of both the open-ended and closed-ended questions of the questionnaires. As for the interviews, the interview guide used during the interviews was used to disposition the analysis of the interviews.

4   Results

This chapter presents the results from the self-administrated questionnaires and the face-to-face interviews. Firstly, the reader is provided with a concise description of how the data were encoded. Secondly, an overview of the findings from the questionnaires is presented, followed by a systematic presentation of the results. Thirdly, an overview of the findings from the face-to-face interviews is presented, followed by a thorough examination of the patterns found. Interpretations of the results presented here are discussed in the next chapter, chapter 5.

4.1   Self-administered questionnaires

The self-administered questionnaires contained 23 open-ended and 13 closed-ended questions, as shown in Appendix 1. The questions were set to examine nine areas of interest as presented in Table 1. Each area of interest was covered by between two and six closed-ended questions and at least one open-ended question.

Table 1. Decoder for the questionnaires.

Area investigated	Items	Questions
1. Team composition	5	1; 8; 9; 13; 24
2. The lifecycle of teams	4	2; 10; 14; 25
3. Group norms	3	3; 15; 26
4. Change management	3	4; 16; 27
5. Implementation of new knowledge	7	18 - 23; 36
6. Impact on overall team performance	3	7; 17; 28
7. Communication	3	5; 12; 29
8. Situational leadership	3	6; 11; 30
9. General issues	5	31 - 35

The respondents had six possible choices for answers to each of the closed-ended questions in the questionnaire; 1 – Not at all, 2 – Very Little, 3 – Little, 4 – To some extent, 5 – To a great extent, 6 – Completely. The numerical values used to calculate the mean values and standard deviation (presented in the tables below) are based on the resulting Likert scores, both for each question, and subsequently for each area investigated.

It should also be noted that the respondents could choose to give several answers to the open-ended questions, i.e. enumerate all the consequences the course had. This means that the number of respondents to some questions does not match the number of ways in which the area investigated affected the project managers.

Table 2. Descriptive statistics of the Likert scores for the responses to each question.

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	27	2	5	4.52	.700
Q2	27	2	6	4.44	.847
Q3	27	2	6	3.96	.980
Q4	27	2	6	4.26	.859
Q5	27	3	6	4.81	.736
Q6	27	4	6	5.19	.681
Q7	27	2	6	4.41	.747
Q8	27	3	6	4.63	.742
Q9	27	2	5	4.33	.832
Q10	27	2	5	4.00	1.074
Q11	27	4	6	5.00	.679
Q12	27	3	5	4.48	.580
Q13	27	2	6	4.70	.869
Q14	27	2	5	4.00	.832
Q15	27	2	5	3.89	.847
Q16	27	2	5	3.85	.818
Q17	27	4	6	4.44	.577
Q18	27	1	5	3.33	1.330
Q19	27	1	5	3.52	1.087
Q20	27	2	5	4.26	.764
Q21	27	1	5	4.26	.984
Q22	27	1	5	3.41	1.047
Q23	27	1	5	3.63	1.079
Valid N (listwise)	27				

Table 3. Descriptive statistics for the overall Likert scores for each of the investigated areas.

	N	Minimum	Maximum	Mean	Std. Deviation
Composition	108	2	6	4.55	.790
Lifecycle	81	2	6	4.15	.937
Norms	54	2	6	3.93	.908
Change	54	2	6	4.06	.856
Implementation	162	1	5	3.73	1.113
Performance	54	2	6	4.43	.662
Communication	54	3	6	4.65	.677
SL	54	4	6	5.09	.680
Valid N (listwise)	54				

4.1.1 Team composition

To examine the project managers' learning regarding team composition following the course, five questions were asked, four were closed-ended and one open-ended. Twenty-seven individuals answered these questions, so the response rate was just over 64%. As shown in Table 2, the questions concerned with this area, i.e. Q1, Q8, Q9 and Q13, all had high mean Likert values ranging from 4.33 to 4.70 with standard deviations ranging from 0.700 to 0.869 and an overall mean value of 4.55 with a standard deviation of 0.790.

As shown in Chart 1, 18 individuals claimed that the training affected their view on how to compose teams. However, seven people could not apply their knowledge in this subject for various reasons (Chart 2). Seven persons also claimed that following the training they better understood the links between task, group composition and project outcome. Five people declared that the course made them realise how important it is to have a diverse set of people within a team, i.e. to cover the whole personality range. Three persons said that the course only repeated what they already knew. Finally, four people stated that the training had other consequences. One person gained understanding of the roles that suited different people. Another person realised that it is not just the formal roles in a team that affect its performance. A third stated that his/her awareness of the fact that individuals take on different roles depending on how the situation and group composition varies over time had increased. A fourth person had learned that there are methods to identify different personalities.
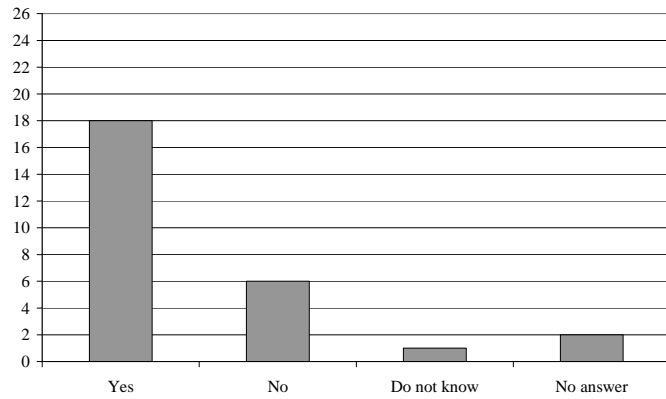
Chart 1. Q24, did the course affect your view on how to compose teams?
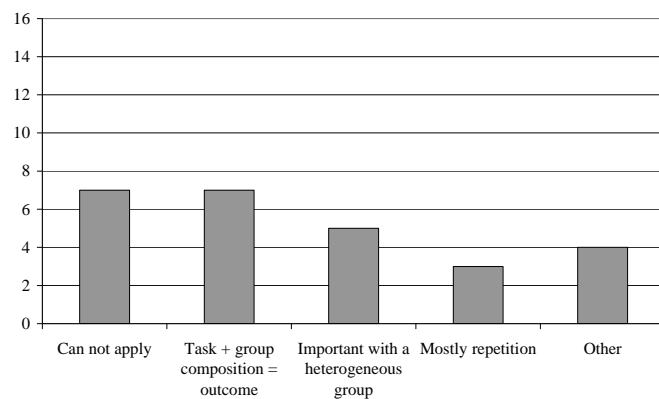
Chart 2. Q24, in what way did the course affect your view on how to compose teams?

4.1.2 The life cycle of teams
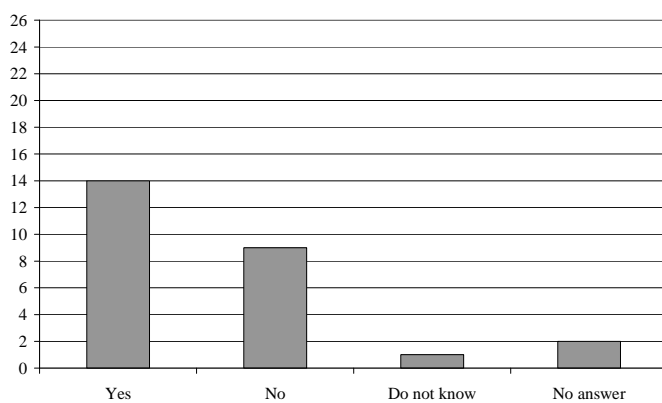
Chart 3. Q25, did the course affect the way you handle the life cycle of teams?

To examine the project managers' learning about the life cycle development of teams following the course, four questions were asked, three closed-ended and one open-ended. The response rates for the closed-ended questions were just over 64%, i.e. 27 individuals answered the questions. As shown in Table 2, the questions concerned with this area, i.e. Q2, Q10 and Q14, Q2 had a mean Likert value of 4.44 whereas both Q10 and Q14 had a mean Likert value of 4.00. Furthermore, the standard deviations ranged from 0.832 to 1.074. The overall mean value was 4.15 with a standard deviation of 0.937. The response rate for the open-ended question, i.e. Q25, was slightly lower than 62%, i.e. 26 individuals answered the question.

Chart 4. Q25, in what way did the course affect the way in which you handle the life cycle of teams?

As shown in Chart 3, 14 people claimed that the course affected the way in which they handle the life cycle of teams. Five persons said that they were better able to handle a variety of upcoming situations within their team (Chart 4). Five persons declared that they did not really learn how to handle the development of a team, but rather how to handle the development of each individual. Three persons stated that they had not had the opportunity to handle a team and its development. Only two persons claimed that they had acquired greater understanding of the stages that a team passes through during the training. Furthermore, one person claimed that the information given was mostly repetition of previous knowledge.

4.1.3 Group norms

To examine the project managers' learning of how to handle the norms of a team following the course, three questions were asked, two closed-ended and one open-ended. The response rates for the closed-ended questions were slightly more than 64%, i.e. 27 individuals answered the questions. As shown in Table 2, the questions concerned with this area, i.e. Q3 and Q15, had mean Likert values of 3.96 and 3.89 and standard deviations of 0.980 and 0.847, respectively. The mean value for the examined area as a whole was 3.93, with a standard deviation of 0.908. The response rate for the open-ended question, i.e. Q26, was slightly under 62%, i.e. 26 individuals answered the question. As shown in Chart 5, only six persons thought that the course affected the way in which they handle the norms of their team. Three persons stated that they did not handle a team (Chart 6). One person claimed that he/she learned the importance of setting an example by his/her own actions. Another person learned the importance of establishing and following set norms. Yet another person
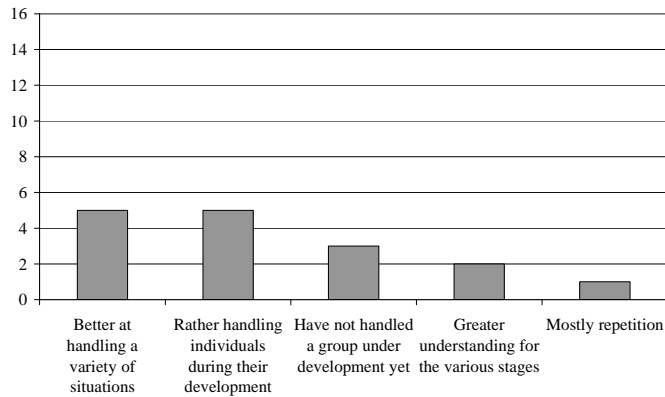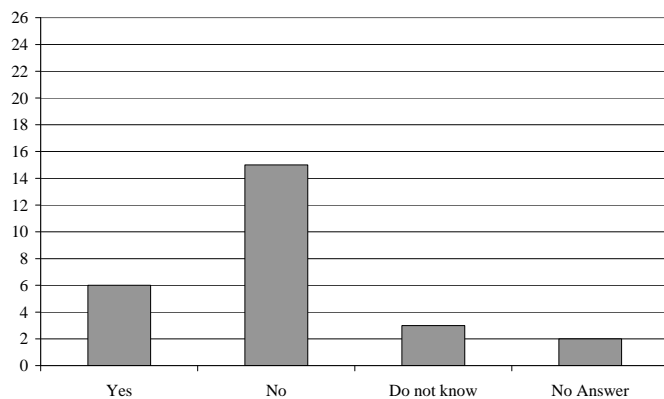

Chart 5. Q26, did the course affect the way in which you handle the norms of a team?
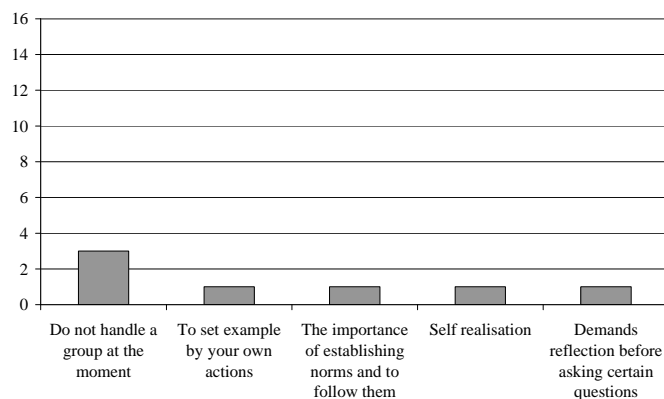
Chart 6. Q26, in what way did the course affect the way you handle the norms of a team?

experienced self realisation during the course and one final person started to think more before asking certain questions within the team.

4.1.4 Change management
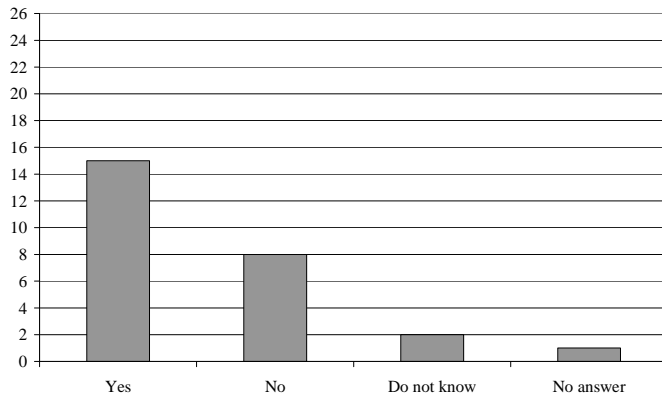

Chart 7. Q27, did the course affect the way you manage your team during change?
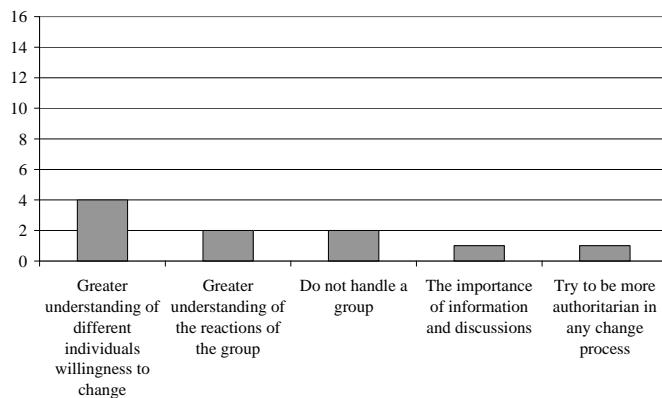
Chart 8. Q27, in what way did the course affect the way you manage your team during change?

To examine the project managers' learning of how to handle teams during change, three questions were asked, two closed-ended and one open-ended. The response rates for the closed-ended questions were slightly over 64%, i.e. 27 individuals answered the questions. As shown in Table 2, the questions concerned with this area, i.e. Q4 and Q16, had mean Likert values of 4.26 and 3.85 and standard deviations of 0.859 and 0.818, respectively. The overall mean value was 4.06, with a standard deviation of 0.856. The response rate for the open-ended question, i.e. Q27, was slightly under 62%, i.e. 26 individuals answered the question. Fifteen people thought that the course affected the way in which they managed their team during change (Chart 7). As shown in Chart 8, four persons better understood each individual's willingness to change. Two persons better understood why teams react as they do. Two persons stated that they did not handle a team. One person recognised the importance of having an open information flow and discussion about change. Another person became more authoritarian during change as a result of the course.

4.1.5 Implementation of new knowledge

To examine how the project managers had been able to implement their learning following the course, seven questions were asked, six closed-ended and one open-ended. The response rates for the closed-ended questions were slightly over 64%, i.e. 27 individuals answered the questions. As shown in Table 2, the questions concerned with this area, i.e. Q18, Q19, Q20, Q21, Q22 and Q23, had mean Likert values ranging from 3.33 to 4.26 and standard deviations ranging from 0.764 to 1.330. This wide spread is due to the fact that each question covered a separate area, and the ease of implementing had clearly varied between different areas. The response rate for the open-ended question, i.e. Q36, was

Chart 9. Q36, have you been able to implement what you learnt following the course?

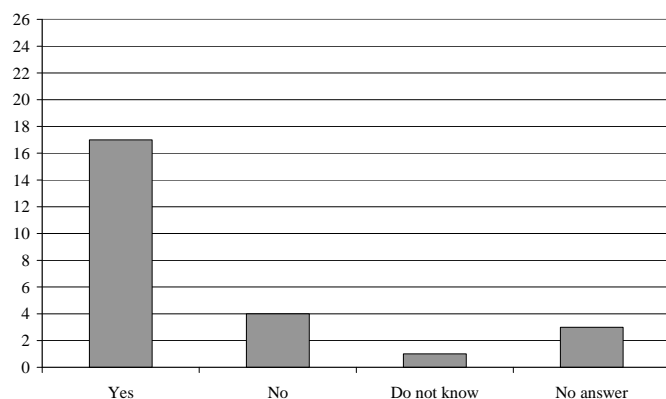slightly under 60%, i.e. 25 individuals answered the question. Seventeen persons thought that they had been able to at least implement something following the course (Chart 9). As shown in Chart 10, five persons claimed that they applied their learning on a daily basis and three persons had been able to apply their learning to some extent. Three persons stated that their communication had become clearer. Two persons improved their understanding of diversities. Some of the other stated opinions were that no

Chart 10. Q36, in what way have you been able to implement what you learnt following the course?

opportunity to apply their learning had been given, someone developed better social relations, and another person became more secure in his/her role.

4.1.6 Impact on overall team performance
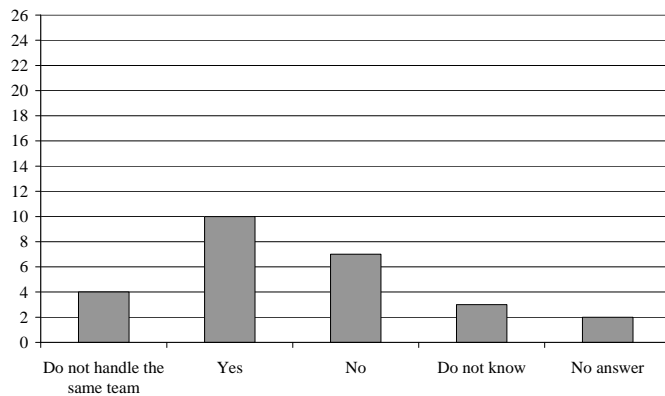
Chart 11. Q28, if you manage the same team as before the course, was the team affected as a result of you attending it?
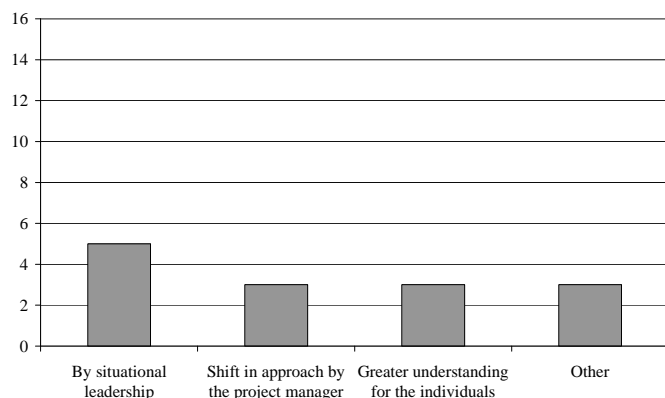
Chart 12. Q28, in what way was the team get affected as a result of you attending the course?

To examine whether their teams' overall performance was affected as a result of the project managers' training, three questions were asked, two closed-ended and one open-ended. The response rates for the closed-ended questions were slightly over 64%, i.e. 27 individuals answered the questions. The questions concerned with this area, i.e. Q7 and Q17, had mean Likert values of 4.41 and 4.44, with standard deviations of 0.747 and 0.577, respectively (Table 2). The mean value for the area as a whole was 4.42 with a standard deviation of 0.662. This was the area with the narrowest standard deviation. The response rate for the open-ended question, i.e. Q28, was slightly under 62%, i.e. 26 individuals answered the question. As shown in Chart 11, four persons did not handle the same team as they did prior to the course. However, ten people felt that the overall performance of their team had improved. As shown in Chart 12, five persons mentioned that the use of situational leadership had improved their team. Three people claimed that

the course created a shift in their approach that made their team improve. Another three people mentioned that better understanding of the individuals in the team also led to better performance. As an example of the other consequences, one claimed that no improvements were noticeable despite his/her frequent use of situational leadership.

4.1.7 Communication

To examine whether the project managers changed the way they communicated with their team as a consequence of the course, three questions were asked, two closed-ended and one open-ended. The response rates for the closed ended questions were slightly over 64%, i.e. 27 individuals answered the questions. As shown in Table 2, the questions concerned with this area, i.e. Q5 and Q12, had mean Likert values of 4.81 and 4.48, with standard deviations of 0.736 and 0.580 respectively. The overall mean value was 4.65, with a standard deviation of 0.667. The response rate for the open-ended question, i.e. Q29, was slightly under 60%, i.e. 25 individuals answered the question. Eighteen persons thought that the course changed the way in which they communicated with their team (Chart 13). As seen in Chart 14, the major reason for a change in communication was the use of situational leadership. Fourteen people claimed that this was the way they had changed. Three persons said that their communication had become clearer after the training. Finally, five people

Chart 13. Q29, did the course affect the way in which you communicate with your team?
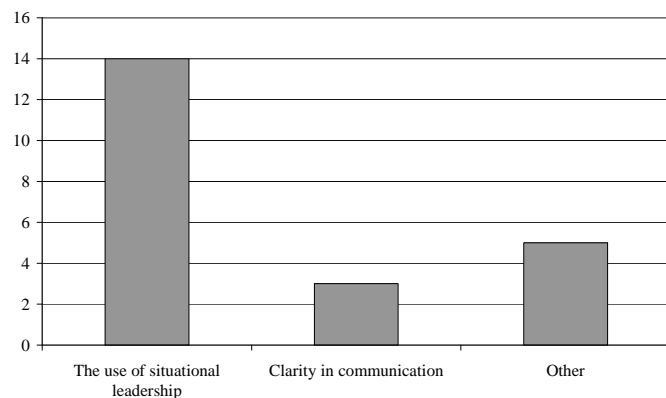
Chart 14. Q29, in what way did the course affect the way in which you communicate with your team?

stated that the training had other consequences. Some of these were that someone began to think more before communicating with the team, another could better communicate with new-comers, and one had started to use more non-directive questions.

4.1.8 Situational leadership
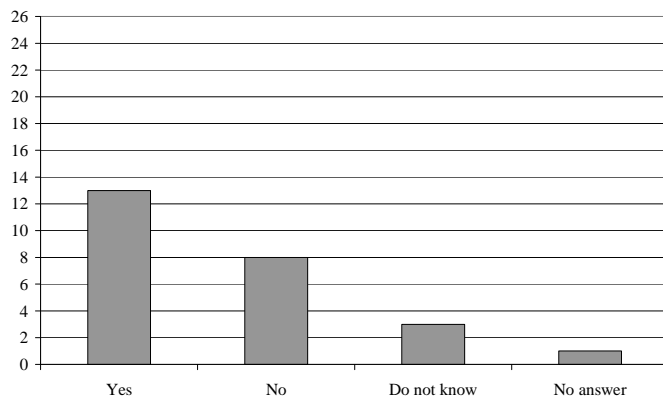
Chart 15. Q30, did the course affect your leadership style?

To examine the project managers' learning about how to adjust their leadership style according to the nature of the situation, three questions were asked, two closed-ended and one open-ended. The response rates for the closed-ended questions were slightly over 64%, i.e. 27 individuals answered the questions. As shown in Table 2, the questions concerned with this area, i.e. Q6 and Q11, had mean Likert values of 5.19 and 5.00, with standard deviations of 0.681 and 0.679, respectively. The mean value for the area as
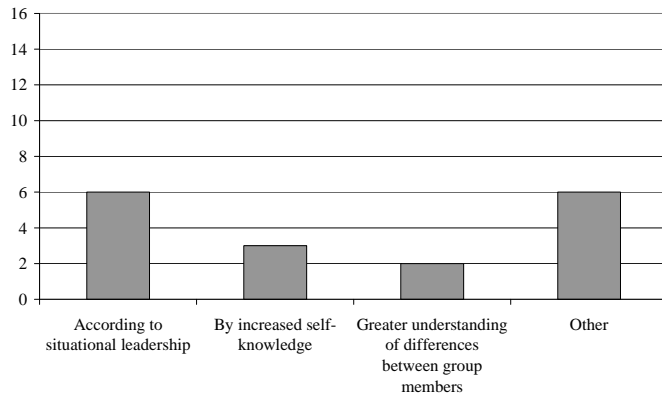
Chart 16. Q30, in what way did the course affect your leadership style?

a whole was 5.09, with a standard deviation of 0.680. This was the highest mean value of all areas and the only area in which all answers were in the range of 4 to 6. The response rate for the open-ended question, i.e. Q30, was slightly under 60%, i.e. 25 individuals answered the question. Thirteen persons thought that the training affected their leadership style (Chart 15). As shown in Chart 16, the major reason for a shift in leadership style was the use of situational leadership. Three persons claimed that they changed their leadership style because of better self-knowledge. Two persons stated that greater understanding of the individuals in the team led to a change in leadership style. Other views were that someone tried to be clearer in their leadership, another stated that he/she began to listen more, and a third person said that he/she became better at listening to both open and hidden statements from the team.

4.1.9 General consequences

To examine the general consequences of the training, five questions (all open-ended) were asked. The response rates for the questions were slightly under 60%, i.e. 25 individuals answered the questions. The first question, i.e. Q31, asked the project managers if the course had caused a change in their behaviour, and if so in what way. Fourteen persons thought that the course changed their behaviour (Chart 17). As shown in Chart 18, six project managers shifted their behaviour toward being more focused on each individual in their team. Four persons claimed that increased self-knowledge changed their behaviour. Two persons declared that their added knowledge about communication changed their behaviour. Finally, two persons stated that the course had changed their behaviour in other ways. One became better at handling people in the first stage of the situational leadership model, and another person had reduced the time spent trying to keep everyone happy and instead became tougher.
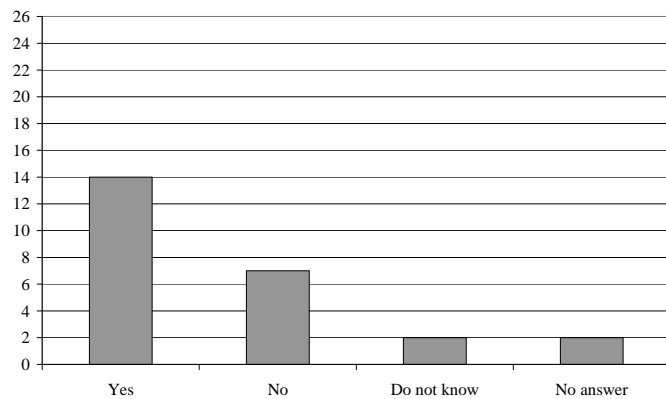
Chart 17. Q31, did your behaviour change as a result of the course?
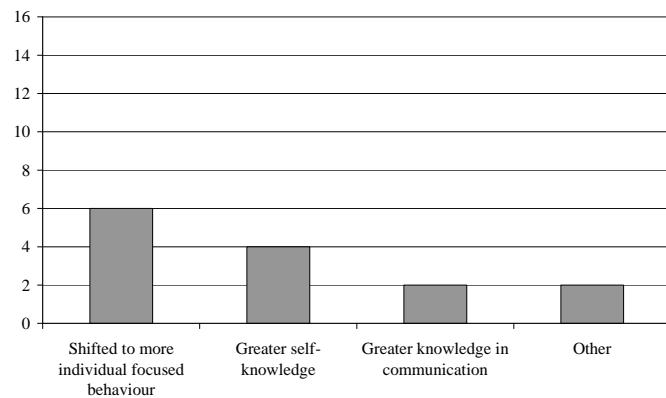
Chart 18. Q31, in what way did the course affect your behaviour?
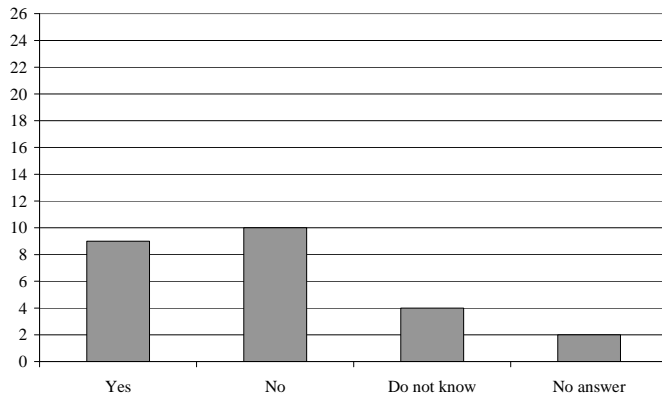
Chart 19. Q32, did the course affect the way you perform your work?
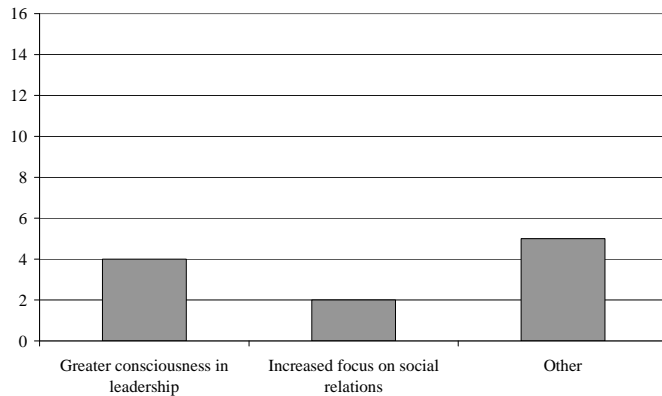
Chart 20. Q32, in what way did the course affect the way you perform your work?

The second question, Q32, asked the project managers if the training had affected the way in which they perform work, and if so in what way. Nine persons thought that it had affected the way they perform work. However, ten persons thought that their work procedures had not been affected by the course (Chart 19). As shown in Chart 20, four project managers said that they tried to manage their team more consciously as a result of the training. They do not just let "things" happen anymore. Two persons had increased their focus on social relations. Finally, five persons claimed that the course affected the way they perform work in other ways. One reportedly performed work with greater self-knowledge. Another gained a larger network of contacts. A third became better at delegating. A fourth changed the way they handle persons since the course gave them a greater understanding of the various types of personalities, and a fifth person began to use to-do-lists to avoid forgetting what to follow up and to better structure his/her days.

The third question, i.e. Q33, asked the project managers whether the training affected the way in which they handle group dynamics, and if so how. Eight persons thought that it changed the way they handle the dynamics of groups (Chart 21). However, nine persons did not think that the training affected them in this respect. As shown in Chart 22, three persons began to focus more on the individuals in the team instead of the team as a whole. Two persons did not handle a team and two persons thought that the course mostly repeated what they already knew in this area.
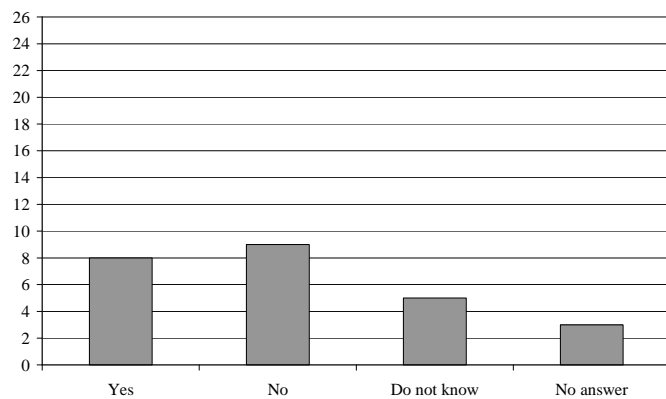
Chart 21. Q33, did the course affect the way you handle the dynamics of teams?

Finally, four persons stated that the course affected the way they handle the dynamics of teams in other ways. Some of these views were that someone thought that it became easier to see if there were problems within his/her team and that it also became easier to solve problems as he/she better understood the nature of the problems. Another person better understood the dynamics within his/her team. A third person stated that he/she did not handle the dynamics, but became better at taking proactive measures.
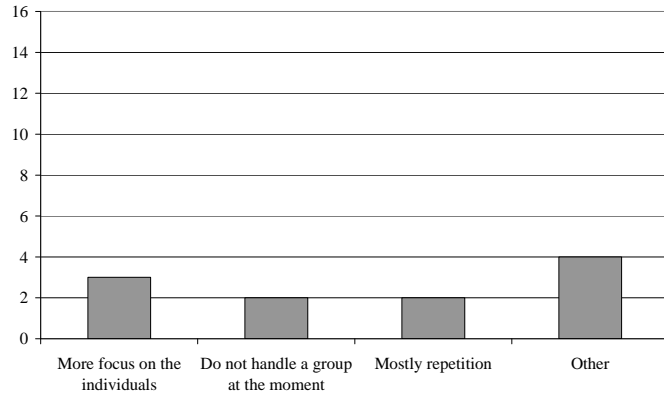
Chart 22. Q33, in what way did the course affect the way you handle the dynamics of teams?
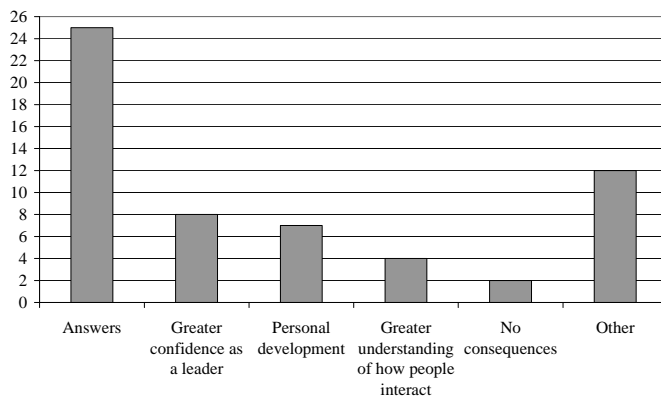
Chart 23. Q34, what consequences has the course had on you personally?

The fourth question, i.e. Q34, asked the project managers what consequences the course had for them personally. As shown in Chart 23, twenty-five persons answered the question. Eight became more secure in their role as leader, seven developed personally, i.e. became more aware of themselves, four declared that they better understood how to interact with various people, and two had not experienced any consequences. Some of the other views were that someone had got yet another course to add to his/her CV. Another person became better at taking advantage of the team members' unique competences.

The fifth question, i.e. Q35, asked the project managers in what way the team was affected by them attending the course. Twenty-five people answered the question (Chart 24). Five persons did not handle a team. Four persons thought that the team had experienced increased clarity in every aspect. Four persons did not know if their team had been affected or not. Three persons had found that the team began to speak the same language and therefore better understood each other. Three persons thought there was greater stability within their teams. Two persons thought that one of the consequences for their teams was improved leadership. Two persons left a blank answer. As an example of the other views, someone thought that the group dynamics in his/her team had improved.
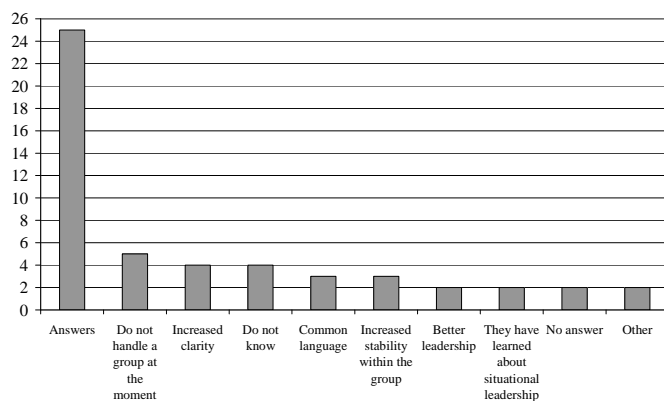
Chart 24. Q35, what consequences has the course had on the team(s) you manage?

4.2 Interviews

The semi-structured interviews were performed with support of the questions shown in Appendix 2. The answers from the ten interviews were categorised by topic, as shown in Tables 4 to 7 and summarised below.

4.2.1 Team composition

Some of the interviewed project managers claimed that during the training they had learned the importance of a properly composed team and that a team should be heterogeneous. However, seven out of the ten could not apply their new knowledge as it was supposed to be used, since they never had had the opportunity to compose a team of their own. Four persons claimed that despite this they could use their knowledge of team composition in order to handle the various types of personalities in a better way. More specifically, they had learned to characterise different types of personalities and how these fit in a certain team. Therefore, eight out of the ten had obtained a greater understanding of the existence of different types of people and personalities.

4.2.2 The life cycle of teams

The project managers did not learn much about how to manage the natural development of a team. Six out of the ten thought that they did not learn anything new on the course, or did not learn anything about group development at all. In fact, only one became aware of what happens in teams as they develop and took actions in order to make his/her team reach a performing stage faster. The main focus of the course was on the development of individuals', i.e. situational leadership, and greater awareness of these issues was what the project managers gained from the course.

4.2.3 Group norms

This is an area that divides the interviewed project managers into two contrasting groups. Half of the interviewees, i.e. five out of ten, did not think that the course had any consequence on the way they handled the norms of their team. Some of the interviewees thought that it was a matter of basic awareness, which usually arises naturally after a couple of years as project manager. However, three persons had actually done something after the training, most of whom became tougher and had started to put their foot down when they felt that the norms of the team were not healthy.

4.2.4 Change management

Like handling group norms, this was an area that divided the respondents into two contrasting groups. Six out of ten did not think that the course had any consequence on how they manage change. The other four persons were able to take things from the training and apply them when faced with a change process, e.g. the use of situational leadership, and changes in the flow of information, i.e. openness about the change with many discussions about the change and its consequences together with the team members. This result might spring from the fact that many of the project managers had not been exposed to any major change process.

Table 4. Answers in interviews 1 to 5, first part.

	1	2	3	4	5
Group composition	Even though I learned how to compose a functional team. This does not mean that this is how it works in real life. The way we compose teams has nothing to do with any theories. We only consider the competence and availability of a person, i.e. it has very little to do with personalities.	I learned to characterise different types of individuals and how to approach these. I better understand what role fits in a certain team. I cannot identify the various personality types, but I have a greater understanding of them. My awareness of how to meet other people has increased. I also became more aware of myself.	I learned that it can be good to have heterogeneous teams. It is more efficient with a variety of personalities, even if all are not goal-oriented. I have gained knowledge about the various personality types and how to use them, but I cannot apply this in my work. With this knowledge I have however been able to coach and give support in a better way.	I realised the differences between various people. Prior to the course I had no idea of how to compose a team, unfortunately we never get the chance to do that, so the knowledge is not applicable after the training. I have however gained an understanding of how important the composition is, but I cannot say that I can use that understanding for anything.	By being aware of the composition of a team I think that you can obtain advantages even from extremely homogeneously composed teams. At least if you know their strengths and weaknesses. The training raised my awareness of how different people behave.
Group development	I do not see the team develop over time, individuals however develop. I use situational leadership a lot since I deal with both experienced and inexperienced team members. I think that I acted in the same way prior to the training, but now I have a tool for dealing with various situations, and I have realised that people need different amounts of help.	Many things felt quite natural, but even if I already knew what was taking place in my team, I needed a tool to structure it and that was what I got.	I obtained a lot of good tips about what to do if people want the same role, both formal and informal. It has been easier to give support knowing what development stage individuals are in. Now I can take a step back, reflect over the situation, and then give the proper support. That has helped me quite a lot.	No consequences from the training.	I learned that the team moves back to square one if a new member arrives. When we have had newcomers I have tried to arrange a lot of activities outside of work to speed-up the social development. Even if I have never used the tool we obtained on the course, I have had it in the back of my mind. The course structured what I already knew and put words to it.
Group norms	No consequences from the training.	No consequences from the training.	No consequences from the training.	No consequences from the training.	After the course we discussed how I experienced the situation in the team and how it affected performance. We also had a discussion in which we established future norms.
Handle change	No consequences from the training. I have not dealt with any major change.	No consequences from the training.	Has changed me quite a bit. Now I am not as afraid of change as before. It is easier to discuss or provide reasons why a change can be for the better. I obtained a lot of useful tools for controlling the will of the team. Prior to the training I did not see the "hidden" reasons behind the change as I do now.	I got some god tips from the other participants, but I think you learn more by experience.	Now we bring issues surrounding change processes to the surface and discuss how we think the change will affect us. Thus, change has become more visible and the members can share experiences from prior change processes.
Group performance	I know from previous courses that I can affect the performance of the team in various ways, but I cannot say that this training made any difference.	I better understand that I have to do something out of the ordinary to get the group or individual to become more effective. I do not know exactly how to make a team more effective, but I know that I have to approach them in a proper way. If I approach the members in the wrong way the team will perform poorly, even if it consists of the right competences.	I can see a slight increase in the performance when using situational leadership. The team has also started to see the project from a helicopter view;, they better understand what to do, why, and when to do it. They are better at reaching early milestones.	No consequences from the training. I think you learn more through gaining experience.	Prior to the training I do not think that I realised just how great my influence over the team's performance is. After the training I started to deal with issues that I previously had taken for granted.

Table 5. Answers in interviews 6 to 10, first part.

	6	7	8	9	10
Group composition	A lot on the course had to do with the different types of personalities that exist. I got more self-knowledge and also more knowledge about why other people behave the way they do. I would probably be able to compose my own team based on this knowledge, but the question is if it would be optimal.	We learned about the different maturity levels of individuals, what their real needs are. Being aware of the different maturity levels of individuals will of course determine how one puts together a team, depending on the scope of the project.	We clearly went through different personalities and how they can work together. Also the importance of covering the whole range of personalities when composing a team. But I felt that this is not how we work here. I can however see faults in the team dynamics and interpret situations with this knowledge in the back of my mind.	It was interesting, but I have not been using it as intended. I have used the theories when I apply situational leadership, to handle individuals differently.	No consequences from the training. I rather got an understanding of how to handle different persons.
Group development	No consequences from the training. I already knew about these things. I thought this bit was a little thin, they should have told us a little more details, for example what happens in each stage.	No consequences from the training. I think the focus should be more on what level each individual is at.	No consequences from the training. The focus was more on the development of individuals.	I have not changed the way I handle the development of the team, but I have become more aware of what is happening. Now I use situational leadership in order to move the team forward in their development.	No consequences from the training.
Group norms	I thought it was very basic stuff, but it gave me the aha experience.	No consequences from the training. I have noticed the norms of the team from the beginning. I have not seen any need to control or adjust the current norms.	I have taken more command over what is okay and what is not okay behaviour. The attitudes were too sloppy before.	I always address this when we kick-off. The members get to say what their expectations are, and I say what my expectations are. But I think most of this comes from me experiencing the same situations as a project member.	I learned to put my foot down and let the members know there are limits. Even if there are unhealthy norms in my team I have not yet had the courage to do anything about it.
Handle change	No consequences from the training.	We have had a major change in the scope of the project. When that happened I thought a lot about the situational leadership that we learned. It would have been difficult to carry through the change without using situational leadership. Following the training I have found it easier to gain acceptance when trying to bring about change. Previously I was very authoritarian when changing things, now I am more open to suggestions from others.	No consequences from the training.	No consequences from the training.	No consequences from the training.
Group performance	Positive feedback leads to a happy team which leads to good performance. I have therefore begun to give more individually based positive feedback.	I think this relates to understanding the potential of the members through the use of situational leadership.	My opinion that motivation is key to performance was confirmed and further reinforced during the training. I feel that the team members perform better now because I follow them up better, and am more interested in their work.	No consequences from the training. I have learned more from just working on projects.	I became more convinced of the importance of the project manager supporting the team and communicating clearly.

Table 6. Answers in interviews 1 to 5, second part.

	1	2	3	4	5
Communication	I talk differently with different people, not as a group, but as individuals.	I learned a lot about interacting with different people in different ways. I have learned to communicate in order to get results and how to get my message across more easily. I have become more aware that people who do not talk as much as others can make as many valuable contributions as others, therefore I can control the communication of the group to obtain what I want.	I learned how to give constructive criticism. I learned to recognise each individual's development level and adjust the way I communicate according to this, i.e. instructing or coaching. When new members arrive it has been easier to get them started quickly.	I became more aware of the importance of communication, and presenting information differently dependent on whom you talk to. Also that everyone is informed and that the right information is spread.	I do not communicate as much via mail anymore. I communicate more directly nowadays, and I encourage my team members to do the same. If there is an unresolved issue between two members I want them try to resolve the problem between themselves before they come to me.
Group management	I do not manage the team as a whole very differently. It is mostly at the individual level through the use of situational leadership.	I better understand when to approach the members instructively, supportively or to delegate. I am more focused on the person who is set to perform a task. At a personal level I better understand my own place in a team, and if I want more responsibility I ask for more responsibility.	I have become better at putting my foot down and saying what I think. Previously I always tried to reach consensus. I take more decisions on my own and feel content doing so. I have also used situational leadership quite a lot.	No consequences from the training. I think you learn more through gaining experience.	My leadership is more conscious now. I have also changed the way I communicate, my awareness of different processes has been raised, and I have tried to make the team more harmonious. I use situational leadership quite a lot, prior to the course I treated everyone pretty much the same.
Implementation of new knowledge	I have not had the opportunity to apply that much in my current project. Some things are not practically applicable in this organisation, such as group composition. But I got more structure to what I already knew. The organisation has not demanded anything in return after the training.	I do not actively think about applying certain tools in certain situations, it is something that I let come naturally. I did not apply anything immediately after the training, there was nothing that I felt I could apply. But I feel that I come across better now that I approach people in a better way.	I have had a strong will to apply as much as possible, but I have generally had quite little possibility to apply what I learned. The things I have chosen to apply have been implemented in small steps. Situational leadership is probably what I have been able to apply the most since it has been easiest to apply.	Theories and the real world are two different things. The organisation is not opposing my attempts to apply my knowledge, but some individuals can give me a hard time and oppose any new influence.	I have not applied my knowledge in a noticeable way for the team. I always let a couple of weeks pass by before I implement new things I have learned. But my appeal to the team to communicate more directly has been well received. As for the implementation of situational leadership, the process was more powerful when we implemented it after the whole team had been trained since everyone knew about the purpose and vocabulary.
Other	The training did not take me further in terms of handling group dynamics, except for situational leadership. The applicability of some theories is not always so good. When you leave a course you are always pepped up, but as you return to reality you seem to forget most of what you learnt. The course should be fitted more to the real world.	I better understand situations and how to manage work, get better relationships and be more effective. It was not just a course on how to manage others, but also to obtain greater self-knowledge.	I have become better at reflecting upon my day. The self-knowledge test has been useful. Prior to the training I saw that things happened, but now I can explain what and why it happened and what the next step is. It was good to meet with other project managers to exchange experiences. It felt good to get recognition from the organisation, that they value me and are willing to invest in me.	I do not think that I have changed after the training, I am who I am. The course was somewhat like taking your driving test; you get the licence but it is not until five years later that you learn how to drive. One gets more excited by training than the amount of knowledge that is applicable. Short (maybe two hours) inspirational lectures with examples can be just as good as a whole weekend. An important ingredient of these courses is to exchange experiences with peers.	I think that the team should know at least the basics of what was taught on the course so that everyone talks the same language. I was very excited when I left the course, but fell back into previous work pattern pretty soon, so I think that it would have been good to have a repetition after a couple of months. After the training I did not get any support from the organisation, it would have been good to have been able to discuss some issues with somebody. I think that it would be good if the organisation had established the purpose of the course and the expected consequences prior to it. The course and its subject matter have to become more integrated in what we do.

Table 7. Answers in interviews 6 to 10, second part.

	6	7	8	9	10
Communication	Sometimes I communicate with some members in the team in one way and others in another way. It depends on which members I want to communicate to.	I communicate differently to different people now, to one who is new in their role I have to be very supportive and to an experienced member I only establish their objectives.	I have become clearer in my communication and try to be the one who really leads the team. I have improved my self-confidence as well.	No consequences from the training.	No consequences from the training.
Group management	I am clearer in my role now and in how I communicate. I also choose more carefully how to behave in different situations and which battles to fight.	I have started to use the situational leadership theories now, i.e. approaching and handling people differently.	It is much about situational leadership, clarity in communication and dealing with conflicts. Prior to the training I was very careful in making everyone like their work, now I focus less on group dynamics, I have turned from the group towards the customer and other surroundings.	I more easily get newcomers started through the use of situational leadership.	I have become better at motivating people, I more often tell someone when I think that they have done a good job. I think that the team members got more confident in me as a leader.
Implementation of new knowledge	Perhaps I was a bit too eager in the first week and tried to apply too much. The team have noticed that I attended the course, I have even asked them if they agree with the personality test that I did for myself. I have not met any resistance, in fact I have a member who knows a little about these things and triggers me. Without this person I would probably not have applied as much as I did, I would just have forgotten all about it. I have not got any feedback from the organisation.	I think that it has been good to implement what we learned. I have been able to apply what we learned about the level of maturity of each individual and how this affects my leadership. The concrete things like situational leadership, active listening and self-knowledge have been easy to apply, but the general things have not been as easy. If it is not concrete enough from the beginning you do not have time to think how to apply it.	Sometime it has been difficult to implement things if there is a lot of stress. I have applied situational leadership on a daily basis. No one has opposed what I tried to apply, but some have probably not noticed it. My boss think this training was very good for me, the team members are however not as interested and I do not think the dynamics would improve if they took a similar course.	I apply situational leadership, so far that is the only thing I have applied. It is easy because it can be applied in any situation. I have got positive feedback from peers for using situational leadership.	It took a while before I recognised a situation where I could apply what I learned and sometimes I forget to apply it. Mostly I use my knowledge when I reflect upon why a situation unfolded as it did. I have no perception of how the team has reacted. The organisation has not demanded anything in return after the training.
Other	I could probably manage without the course, but now I have more structured knowledge. I got a good network within the organisation during the course, which is probably the best part. We who took the course have met again to discuss problems we have encountered, which was very worthwhile. I think teacher led repetition would be worthwhile. It would also be good if the five most experienced project managers in the organisation could speak about their experiences.	Every time you are trained and reminded of what is important, it is the positive energy and focus that you bring back to the organisation. Within the group I have actively tried to spread a better understanding about the stuff about personality types. It would have been better if we had been better prepared before attending the course. I think that the course is some sort of quality assurance for the organisation, but they have not responded at all after I attended the course.	Most of the team members have been trained in situational leadership so they know what it is all about. The best thing about the training was improved self-confidence, and meeting peers to exchange experiences. I have not had good support after the course; I have not got a good relationship with the bosses at all. Even if I have forgotten half of what we learned I still think it was well invested time. We want good leaders in the organisation and a lot of money is spent on achieving this, but not enough time is spent. I think there is many that know about the theories but are not given the time to develop their knowledge.	This course is in no way a quality assurance for the organisation, we do not use it that way. The organisation has not recognised that I attended the course in any way. This training gave me two things: (1) awareness, which increased my ability to deliver, which gives value to the organisation, (2) an energy-boost from being at the course. A large part of its value was meeting with peers to exchange experiences. An important part of these courses is to obtain a net of contacts so that you can get help if you have any questions, but we have not been given that kind of support afterwards.	We learned how to handle individual team members during the training and that they need different amounts of support, depending on their competence and role. After the course I have become more tolerant of people than before. I can also take an argument for what it is and not make a big deal about it. I have developed more distance from my work and see people and things from a different perspective.

4.2.5 Impact on overall team performance

During the course, many of the respondents had become more convinced that they have a huge influence on how their team performs. They became aware that if they approach people in the wrong way they will not get the result they want, i.e. they should use situational leadership. However, three out of the ten project managers had learned more through experience.

4.2.6 Communication

Two of the interviewed project managers had not changed the way they communicate as a result of attending the course. Five out of the ten respondents had however learned to adjust their communication depending on who they are communicating with and what they want to communicate. For example; one had started to communicate less via email and more face-to-face, and another had been able to direct and control the communication within the team better.

4.2.7 Group management

As many as eight out of the ten interviewed project managers mentioned that they used situational leadership as a way to manage teams after the course. One said that as a result of the training, he/se focused more on the person set to perform a task. Three respondents mentioned that they had changed the way in which they communicate, that they became clearer in what they said. Some respondents became firmer and made more decisions without consulting the team, and felt very at ease when doing so. A couple of the project managers picked their battles more carefully after the training. One thought that the training had made the team members more confident in him/her as a leader.

4.2.8 Implementation of new knowledge

There had obviously been mixed results when the project managers tried to apply their new knowledge after returning from the course. One thought that the implementation had gone smoothly, and another said that it took a while before he/she could identify a situation where the learning was applicable. Others felt that they had not had any opportunity to implement it so far, although some of them had a strong will to apply a much as possible. Another respondent had received feedback indicating that he/she was a little bit too eager to apply everything immediately after the course. One respondent thought it was too stressful at work to make time to apply the new knowledge.

There were also many reasons for the mixed results. For example, three of the ten project managers said that the organisation had not prompted them to apply anything after the course. Some of the respondents stated that some things presented on the course were just not practically applicable in the organisation. Another person did not actively think about applying what they learnt, but rather let it come naturally. However, six out of the ten had applied situational leadership, because this was claimed to be the easiest thing from the course to apply. One declared that the concrete things had been easiest to apply, like situational leadership, active listening, and self-knowledge. However, the general things had been more difficult to apply, possible because they had not had any time to think these rather complex issues through. The respondents did not think that the organisation itself had opposed them when trying to implement something. However, one project manager said that some team members had been resistant, saying that things should be done the way they always had been. But most teams had not given any response at all.

4.2.9 Other

When the respondents had the opportunity to speak freely about their responses to the course, a number of different thoughts and concerns were, of course, expressed. Five of the respondents said that they were really pepped up and excited when they left the course, but when they got back they had forgotten most of what they learned. Consequently, some of the respondents thought it would be good for the organisation to establish why they should attend the course and what they expected from them afterwards. Furthermore, some of the interviewed project managers thought that the course should be fitted more to the real world, more integrated with how the organisation really performs work. Another respondent thought that a short workshop would be just as good to get the attendees exited and pepped up in the way that he/she was after the three-day course. Two of the project managers thought that they could have managed just as well without the training: a three-day course would not change them. The fact that they were able to exchange experiences with their peers and to expand their network was highly appreciated by five of the respondents.

Four of the project managers felt that they did not get any support from the organisation after the course. Furthermore, they claimed that the organisation had not recognised that they had attended it, and there were different views about whether the training had been some sort of quality assurance exercise for the organisation or not. One of the respondents said that several persons in the organisation know about the theories, but are not given the time to develop their knowledge. Some of the respondents, for example, thought that it would have been good to be able to discuss relevant issues and questions with someone after the course. Two persons suggested that it would be good to have some follow-up after a few months, perhaps led by some of the more experienced project managers within the organisation so that they could share their experiences regarding the issues raised.

The individual consequences the respondents had experienced from the training were also diverse. One person, for example, had become better at reflecting on his/her day. Another person understood why certain things happen and could predict what the next step would be. A third respondent had begun to understand situations and how to manage work better; he/she had developed better relationships and become more effective. Someone became more tolerant toward people as a consequence of the course.

5 Discussion

The purpose of this study was to assess the consequences (both positive and negative) of training project managers in team skills. Hence, the data gathered and presented in the previous chapter will be discussed with the purpose mentioned above as starting point. The theoretical material presented in chapter 2 will be synthesised with the empirical findings presented in chapter 4 so that implications for future, similar, endeavours can be addressed in the next chapter.

The consequences of training project managers in team skills are quite diverse and highly individual. Each project manager comes to a course with a unique set of experiences and knowledge of the subject. Many of the project managers in this study, for example, had already been taught in team skills, although maybe not as extensively as on this course.

5.1 Consequences for the project manager

This study has determined that training project managers in team skills enhances their understanding of the various interpersonal and group dynamic processes in a team. The mere application of the many theoretical models that they are taught is not really important. A good example of this is the project managers' increased awareness of various personalities. None of the project managers in this study had actually been able to use their new knowledge about how to compose teams as they are supposed to. However, they became aware of the nature of various personalities and how important it is to cover the whole range of personalities in a team. Of course, these new knowledge's can be questioned when looking at the issue of heterogeneous or homogeneous teams and their respective strengths and weaknesses. However, the environment in which the organisation operates is rather innovative and dynamic, which justifies the heterogeneous perspective.

A major consequence of the course was that the interviewed project managers felt really pepped up and excited after the three days. The combination of escaping reality, learning new things, and interacting with peers seems to create an eagerness to change, at both personal and professional levels. This energy kick may result in better results at work for the project manager, at least in the short run. However, although the project managers wanted to bring about change, the possibility to apply the knowledge they had acquired varied greatly. As described in section 2.1.2, a study presented by Jerkedal (1986), for example, found that only 18% of a group of trained project managers had been able to use their new knowledge after the training. In the current study the corresponding figure was 63%. Jerkedal (1986) claimed that the major reason for the low percentage in his research was the lack of connection to real workplace problems, i.e. scenarios in the training to which the project managers could relate. The respondents in the current study did not generally express any similar concerns, except with respect to group composition. Nevertheless, the respondents had decided entirely by themselves the ways and the extent to apply what they had learned. This means that the parts of the training that were concrete and easy to apply were used, while the things that required more consideration and thought had not been applied to the same extent. During the interviews, some project managers also said that they perhaps learned only 20-30% of what was taught, simply because the subject was too complex and comprehensive to grasp in a single occasion. The comprehensive and diverse body of knowledge regarding team skills is, as described by McCreery (2003), see section 2.1.1, one of the major problems when training project managers. Since one of the project managers stated that he/she could be equally exited by lectures lasting just a couple of hours, one should maybe consider dividing the course considered here

into several less extensive and shorter occasions. It is, however, one thing to create excitement, and a completely different thing to actually change behaviour.

Zika-Viktorsson (2002) has determined, as described in section 2.5, that it is not only the theoretical substance of courses that affect project managers. The current study reinforces these thoughts since 50% of the interviewed project managers mentioned that the exchange of experiences with peers was one of the most important parts of the training. Beside the merely exchanging thoughts about work procedures, the project managers also obtain a wider network of contacts within the organisation that they would not normally interact with. These contacts could be used later to exchange experience and obtain help regarding issues that occur after the training. However, the current study shows that the project managers rarely take advantage of this opportunity, despite the fact that they think that the support from the organisation is weak.

As mentioned above, the training fosters a willingness to change, both personally and professionally. The personal development for the project manger is extensive. Even though the training focuses on how to manage teams, the project managers can clearly use the knowledge they acquire about others and relate it to their current situation. Hence, the project managers seem to gain self-confidence, self-knowledge, as well as increased confidence in their role as leaders.

5.2   Consequences for the management of teams

The training affects the way in which project managers manage their teams. Following the course the project managers focused more on individuals, their unique features and needs. However, the ways in which the project managers think the training affected the team are quite diverse, and as many as 20% of the respondents did not even manage a team. The major reason for the increased focus on individuals is the increased use of situational leadership. As many as 80% of the interviewed project managers stated that they began to use situational leadership as a way to manage their team, whereas only 52% of the respondents to the questionnaire stated that the training affected their leadership style. However, 56% of the respondents thought that the training had changed their behaviour, mostly toward an increased focus on individuals. As mentioned in section 2.4.2, the behaviour of the project manager shapes the climate of the team in ways that emphasise his/her priorities (Dragoni, 2005). Therefore, the project mangers had clearly started to show that they valued each individual and their contribution to the collective outcome. This is important, since the effectiveness of a team is believed to be maximal if the project manager manages to create a shared understanding of the task, roles and competences that exists within the team (Tannenbaum, Salas and Cannon-Bowers, 1996). 26% of the respondents claimed that the training had made them realise this connection and one can only hope that they also express this to the team.

Training project managers in team skills will not necessarily change the way they handle the norms of the team. Both in the theoretical framework and the results chapters of this dissertation the project manager's influence on the norms of the team is questioned. As described in section 2.3, some researchers claim that the project manager must establish a set of acceptable norms, while others claim that the project manager cannot shape the norms of a team according to their own preferences. The study presented here indicates that 23% of the respondents to the questionnaire thought that the training affected the way they handled the norms of their teams, and 30% of the interviewed project managers had done something concrete after the course to adjust the norms of their team. Many project managers are in the same position as those participating in this study; they have not had the opportunity to select the members in

their team. Even if Zaccaro, Rittman and Marks (2001), as described in section 2.6.2, found that project managers can influence the climate of a team by selecting the individuals they include in it, this is not applicable in most cases. Therefore, project managers generally have to be able to manage teams that have already been composed, and which may or may not be optimal for the task to be performed. In these cases they have to be able to handle the interpersonal processes anyway, and a major part of this concerns the norms of the team, since they decide how the team behaves. Therefore, it is somewhat strange that not more that 30% of the project managers who participated in this study had actively changed the way they handle the norms of their team as a result of their training. The reason for this might be that stated by 20% of the interviewed project managers, namely that skills in handling the norms of the team develop naturally after a couple of years.

As described in section 2.8, there is no single best way for project managers to manage a change process. The preferred way to approach the change process depends on the situation. The ideal way to approach change could also depend on whom the change process affects. This study shows that when managing change, those trained in team skills have a greater understanding of the diverse set of team member reactions to change. The need to approach these diverse set of reactions individually as well as collectively has also become clear. Hence, as stated in section 2.8.1, the team members will become more ready to accept a change process the more they know and understand about it. After the course, the project managers in this study had become somewhat better at discussing the change process openly with their team. These discussions let everyone have a say about what their concerns regarding the upcoming change, and facilitated a sharing of experience between those who had gone through change before and those who were new to these kinds of challenges. Other benefits mentioned included reductions in the amounts of false rumours about the change circulating within the team.

One of the biggest consequences of the course was the massive change in communication that the project managers report had occurred after it. As many as 72% of the respondents claimed that the course affected the way they communicate. As mentioned in section 2.4.2, the quality of team communication is directly related to the performance of the team. The majority of the project managers had begun to adjust the way they communicated, depending on who they were communicating with and what they wanted to communicate.

Although the course seemed to have affected many aspects of the ways the project managers did their work, there are some ambiguities regarding the extent to which the project managers themselves thought they had applied what they had learnt. The only two areas in which the mean Likert value was higher than "4 – To some extent" were situational leadership (4.26) and communication (4.26). The area with the lowest score was not surprisingly, group composition (3.33). Implementation *per se* had not been hindered by the organisation, but in one case the team members had opposed attempted implementation by the project manager. Some project managers considered the implementation of their learning to have been smooth, while others felt that they had not had a chance to apply anything.

5.3 The organisational support mechanism

The problems that some project managers had with implementing what they had learnt are no surprise. As described in section 2.1.2, many trained project managers experience difficultness in transferring theoretical knowledge into workplace practice. Hence, many of the project managers felt that they had not been able to apply more than a couple of things from the course. Even though many wanted to apply more of what they had learned, they were not able

to perform all these changes. According to Jerkedal (1986) this could be because the project managers return to an unchanged organisation. The organisational environment must provide support for the project managers during their attempts to implement what they have learned. In this study such organisational support did not exist, because even though none of the respondents said that the organisation had prompted them to use their new knowledge, they had not been directly encouraged to do so either. In fact, many of the project managers felt somewhat abandoned when they returned from the course. Even though the organisation encouraged the trained project managers to arrange informal reunions after a couple of months this was very seldom done. In fact it had only been done once, by the group that was trained most recently, and on that occasion only about 50% of the participants showed up. Another reason why the project managers did not apply more of their new knowledge was, according to some of the respondents, the stressful environment. They wanted to apply as much as they could, but under time pressures, the first thing that they excluded was implementation of their new knowledge. Research done by Hirst et al. (2004) confirms that such scenarios often occur.

As described in section 2.1.2, Salas and Cannon-Bowers (2001) declared that the level of motivation prior to training affects how much the participants learn, as well as how well they manage to implement their new knowledge when they return. As mentioned earlier in this chapter, many of the participants felt highly motivated when they returned from the course. But none mentioned any level of motivation prior to the course, except that it would be nice to get away from reality for a while. In fact, some of the respondents said that they would prefer the organisation to put more pressure on them. Hence, the organisation should not send project managers to this course (level four) simply because the participants have finished the first three levels. As noted earlier, as many as 20% of the participants did not even handle a team at the time of the study, and some of the project mangers who attended the course saw no personal consequence other than that they had managed to extend their CV with yet another course. However, people that the organisation chooses to train should not merely be told about the fact that they are to attend a course. The project managers that are about to be trained should instead be thoroughly informed about why the organisation is willing to invest in their career and what the organisation expects the participant to have learned after attending the course. Similarly, the organisation should not just leave the project managers to themselves after they have been trained, but should give them appropriate support. In this regard this study shows that the organisation did not take advantage of all the knowledge that their trained project managers had acquired. The organisation should, therefore, allow the trained project managers to recap what they learned during the course in a workshop environment, in which the senior project managers also participate to share their experiences with their younger and less experienced peers. The trained project managers should also be allocated a personal mentor, to allow them to express and discuss their problems with someone who has similar knowledge, but a lot more experience.

5.4   Reflections of the author and future research

This research process has, for the most part, run smoothly. The only thing that delayed the process was the distribution of the questionnaire. The researcher took advantage of the fact that the organisation already had an internal system for sending out anonymous questionnaires. However, since the organisation is a consultancy firm they have employees working at other companies, which in some cases did not allow them to access the internal system. Therefore, some of the questionnaires were distributed via e-mail in order to increase the response rate.

This study should furthermore preferably have been preformed in a longitudinal manner, since it is extremely difficult to capture all the consequences of a course by simply asking the participants. The participants in this study had no unanimous answer regarding ways in which their team was affected by them attending the course. In fact, "do not know" was one of the most frequent answers. Therefore it would be interesting to study not only the trained project managers, but also the teams that they are set to change.

6 Conclusions

The learning outcomes for project managers from courses are diverse and highly individual. This study shows that the major consequence of the investigated course for project managers in team skills was an increased focus on the individual. By focusing on the individual, project managers learned to quickly adapt their leadership style, and hence develop more effective team relationships. This adaptation involved changes in communication and alterations in approaching team members to ensure that the overall message had been understood. The second major consequence was the increased drive and enthusiasm project managers felt upon completion of the course. A distinction should however be made between the short- and long-term consequences. Short-term consequences may include increased drive and high motivation; however processes and reviews must be put in place to develop these benefits into long-term changes in behaviour.

6.1 Managerial implications

It is urged that caution be taken when considering sending project managers to expensive courses externally. It is vital that the project managers understand why they are taking the course and exactly what the organisation expects from them when they return to their respective workplaces. An understanding of the long-term goals of the course is also necessary to prepare the project manager. Organisations should not be satisfied by merely sending out invitations to the participants to attend the course. The participating project managers should be thoroughly informed by their superiors about why they are to attend it, and what they are expected to learn from it. This study has highlighted a need for extensive preparation and review in connection with these kinds of courses, mainly because the trained project managers are left on their own when attempting to change the way they, and their teams, work. Organisations should hence take more control over the competence capital they possess.

Organisations must choose whether they want to optimise the project managers learning's or if they want to prioritise the non-theoretical substance related to courses. The length of courses affects the amount of information retained and its use in the long-term. Courses running for three days could be broken up to allow the information to be applied in real situations with reviews being undertaken prior to the next course day. However, when breaking up courses, the project mangers lose the opportunity to socialise with each other, to exchange experiences, and to expand their network of contacts. Hence, organisations must consider which configuration that best fit their needs and subsequently adjust the setup of the course.

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Appendix 1. Questionnaire questions

Q1   To what extent did the course add to your knowledge about *how to compose teams*?

Q2   To what extent did the course add to your knowledge about *how teams develop*?

Q3   To what extent did the course add to your knowledge about *team norms*?

Q4   To what extent did the course add to your knowledge about *how teams response to change*?

Q5   To what extent did the course add to your knowledge about *communication*?

Q6   To what extent did the course add to your knowledge about *situational leadership*?

Q7   To what extent did the course add to your knowledge about *the leader's effect on the team*?

Q8   To what extent do you, after the course, better understand *different people's way of acting?*

Q9   To what extent do you, after the course, better understand *how different people fit in a team?*

Q10   To what extent do you, after the course, better understand *how the dynamics of a team develops over time?*

Q11   To what extent do you, after the course, better understand *in what ways a leader can alter their leadership style according to the situation?*

Q12   To what extent do you, after the course, better understand h*ow the communication of the leader can affect the performance of the team?*

Q13   To what extent do you, after the course, better understand *how the characteristics of a team can vary depending on its members?*

Q14   To what extent do you, after the course, better understand *how a team should be managed through its life cycle?*

Q15   To what extent do you, after the course, better understand *how the norms of a team affect their performance?*

Q16   To what extent do you, after the course, better understand *how teams in change should be managed?*

Q17   To what extent do you, after the course, better understand *how the leader can affect the performance of the team?*

Q18   To what extent have you, after the course, been able to apply what you learnt about *team composition?*

Q19 To what extent have you, after the course, been able to apply what you learnt about *team dynamics?*

Q20 To what extent have you, after the course, been able to apply what you learnt about *communication?*

Q21 To what extent have you, after the course, been able to apply what you learnt about *situational leadership?*

Q22 To what extent have you, after the course, been able to apply what you learnt about in *how teams develop?*

Q23 To what extent have you, after the course, been able to apply what you learnt about *how the leader influences team performance?*

Q24 Did the course affect your view on how to compose teams? If so, in what way?

Q25 Did the course affect the way you handle the life cycle of teams? If so, in what way?

Q26 Did the course affect the way in which you handle the norms of a team? If so, in what way?

Q27 Did the course affect the way you manage your team(s) during change? If so, in what way?

Q28 If you manage the same team as before the course; was the team affected as a result of you attending the course? If so, in what way?

Q29 Did the course affect the way in which you communicate with your team? If so, in what way?

Q30 Did the course affect your leadership style? If so, in what way?

Q31 Did your behaviour change as a result of the course? If so, in what way?

Q32 Did the course affect the way you perform work? If so, in what way?

Q33 Did the course affect the way you handle the dynamics of teams? If so, in what way?

Q34 What consequences has the course had on you personally?

Q35 What consequences has the course had on the team(s) you manage?

Q36 Have you been able to implement what you learnt following the course? If so, in what way?

Appendix 2. Interview questions

Q1 Can you tell me a little about how the course affected your perception on how to compose teams?

What consequences do you think this has led to? (for you, the team, and the organisation)

Q2 Can you tell me a little about how the course affected your perception on how to handle the ways teams develop?

What consequences do you think this has led to? (for you, the team, and the organisation)

Q3 Can you tell me a little about how the course affected your perception on how to handle the norms of teams?

What consequences do you think this has led to? (for you, the team, and the organisation)

Q4 Can you tell me a little about how the course affected your perception on how to manage change, e.g. work procedures?

What consequences do you think this has led to? (for you, the team, and the organisation)

Q5 Can you tell me a little about how the course affected your perception of your own influence of the performance of the team?

What consequences do you think this has led to? (for you, the team, and the organisation)

Q6 Can you tell me a little about how the course affected how you communicate with your team and its members?

What consequences do you think this has led to? (for you, the team, and the organisation)

Q7 Can you tell me a little about how the course affected the way you manage you team?

What consequences do you think this has led to? (for you, the team, and the organisation)

Q8 Can you tell me a little about how implementing the things you learned on the course have gone?

What consequences do you think this has led to? (for you, the team, and the organisation)

Q9 Would you like to add anything?