Abstract

There is a lack of universally applicable team leadership models for cross-cultural work teams. The research on cross-cultural team leadership has mostly been conducted with an ethnocentric or culturally comparative approach. Therefore, the purpose of this study has been to discover a universal leadership theory, leading to high cross-cultural team performance.

This dissertation describes the prior research bound to the research topic and the development of a universal, cross-cultural team leadership style. The new, created leadership style, the Integration Oriented Leader, was designed to bring forth high cross-cultural team performance. The suggested theory was empirically tested in a laboratory experiment and received strong support. The conclusion of the conducted research is that the Integration Oriented leadership style may very well be the most suitable leadership style to implement in cross-cultural work teams.
Foreword

Kristianstad, November 2004

With this dissertation, we are completing our studies here at Kristianstad University. During our education as international business students, we have gained knowledge and competence, which we were able to apply when writing this dissertation.

We experienced this process as challenging, however very instructive. We learned the importance of collaboration and the courage to face obstacles instead of choosing easy solutions. Along the way, we also noticed that inspiration is achieved by innovation.

We would like to express our sincere gratitude to our tutor Christer Ekelund, who made it possible to us to complete this dissertation.

For all her support and guidance throughout the process, we would like to give a special thanks to our English teacher, Viveca Fjelkner.

We also want to thank all the experiment participants, who made it possible to conduct this research. Jessica Sundqvist, who attended as the team leader in all experiments.

Eva Biro          Magdaleena Forsman
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Chapter 1
Introduction

The first chapter introduces the background of the dissertation. The research problems and the purpose are discussed. Further, the limitations, definitions and research questions are defined. Finally, the outline is presented.

1.1 Background
As being business students of the 21st century, with an international orientation, it is most likely that we will experience the challenges of working in a cross-cultural context. Along with the current globalisation, organisations employ an ever-growing cultural diversity. This increases the possibilities for cultural interactions, and highlights the need for cultural integration.

The problems involved with cultural integration are experienced whenever cultures interact. Since team structures have emerged in a wider context, it naturally increases the cultural diversity within work teams as well. We found it interesting to investigate how cultural diversity impacts the work and the relationships within teams. We also wanted to understand how this emerging cultural diversity within teams affects the leadership, not only its influence on individual interactions and work processes.

While we studied the literature within the research area, we realised that there is a need for contemporary experimental research on cross-cultural team leadership with a universal approach. There are relatively few studies conducted with the purpose of finding an effective method to lead cross-cultural teams. There is much literature offering guidance and advice on the subject, but with no academic reliability. Therefore, our main purpose was to find the most applicable academic theory on universal cross-cultural
leadership. Many researchers have conducted researches on cross-cultural leadership before us, but mostly with a culturally comparative or ethnocentric approach.

1.2 Problem
The problem is that there is a lack of academically reliable team leadership research on cross-cultural teams. However, there are cross-cultural team leadership theories that have been tested on a variety of cultures, but the universal approach does not seem to have been of major research interest. The fact that many cross-cultural teams have performance problems indicates that there is a need for universally applicable cross-cultural leadership theories.

1.3 Purpose
The purpose with our dissertation is to discover what cross-cultural team members and leaders need in order to succeed. Further, the purpose is to investigate whether there are any leadership theories that would lead to better cross-cultural team performance. The lack of academically reliable team leadership research on cross-cultural teams encouraged us to investigate the subject and find a leadership theory that would lead to high cross-cultural team performance. If we cannot find a universal cross-cultural team leadership theory that suits our purpose, the intention will be to create a theory, universally applicable in any cross-cultural team.

1.4 Limitations
We have studied many researchers within the field of cross-cultural teams. However, the time constraint limited us to only concentrate on the most known and supported theories. Concerning the empirical study, we decided to only study the international and Swedish student population in the Business Department, here at Kristianstad University. We would not have
had enough resources or access to make a similar research in a more realistic working environment.

1.5 Research Questions
The dissertation is based on the following Research Questions:

- Which are the most important factors, impacting work team performance?
- How does cultural diversity affect team performance?
- What is expected of a leader of a cross-cultural work team?
- Are there any existing theories, explaining how a cross-cultural team leader should behave in order to achieve high performance?
- If not, is it possible to create a universally applicable theory on cross-cultural team leadership?

1.6 Definitions
Here we present our definitions of the terms most commonly used in the dissertation. Apart from these, there are other definitions to be found throughout the text, made by various researchers.

*Uni-cultural teams:* Uni-cultural teams are referred to as teams where all the team members have the same cultural background.

*Uni-cultural homogeneous teams:* Uni-cultural teams where the level of demographic, psychological and organisational diversity is low.

*Uni-cultural diverse teams:* Uni-cultural teams where the level of demographic, psychological and organisational diversity is high.

*Cross-cultural teams:* Work teams constituted of different nationalities.
1.7 Outline

The dissertation has the following outline.

Chapter 2: The methodological strategy, research design and scientific approach are presented.

Chapter 3: The theoretical framework is presented. First, we analysed the main problems and advantages within work teams. The focus was on culturally diverse work teams, and the differences between these and uniculural work teams. Second, we discussed leadership and presented leadership theories and evaluated which one is the most applicable on cross-cultural teams. Finally, we modified an existing theory.

Chapter 4: The Experimental Research is presented. We started by describing the Experimental Method where the entire process was explained. Further, the experiment data for each sample was presented and the Experiment Analysis was discussed. Finally, the Experiment Conclusion was presented.

Chapter 5: The Conclusions are presented. First, we summarized the dissertation. Further, we suggested modifications, revised the chosen methodology and made suggestions for further research. Finally, the practical implications of the research findings were discussed.
Chapter 2
Method

The methodological strategy is presented. The research design is discussed in two parts, starting with the Theoretical Framework and continuing with the Empirical Study. The chapter concludes with the description of Research Approach.

2.1 Methodological Strategy
As described in the Introduction, our aim was to find the best universal practices for leading a cross-cultural team. Therefore, we needed to start by studying these teams in order to understand the phenomena affecting their performances. Further, we studied uni-cultural leadership theories as well as the few existing theories on cross-cultural leadership. We also discussed the applicability of these theories on cross-cultural work teams. However, we realised that these uni-cultural team leadership theories would only be applicable after the process of modification. During the work process of the dissertation it became obvious to us, that this kind of modification was necessary. The modification was made on the Path-Goal Theory of Leadership, which consists of four different leadership styles. Therefore, our hypothesis was that the new leadership style, which was created, would bring forth higher performance in cross-cultural work teams than the original Path-Goal Leadership Styles.

Since we modified an already existing theory and tested the modification and the original theory against each other, our original deductive approach had to be widened to also include an inductive approach. In this way, our research strategy came to be a mix between inductive and deductive research (Saunders, Lewis & Thornhill, 2003).
We decided that the most appropriate research strategy would be an experimental study. This was based upon the realisation that this strategy would give us the most correct picture of the circumstances within cross-cultural teams. This type of research has been neglected in the field of management research even though laboratory experiments have a number of important advantages (Early & Mosakowski, 1996, cited by Punnett & Shenkar, 1996). We conducted a laboratory experiment in order to test the relationship between leadership style and team performance as well as the suggested leadership theory.

2.2 Research Design

2.2.1 Theoretical Framework
Since globalisation is a rather recent development, and team based structures do not have a long history, the literature on our research topic is contemporary. As mentioned in the Background in chapter 1, we deliberately chose only to present known and supported researches, instead of introducing the whole range of different theories. We critically reviewed the literature before starting the writing process and chose only the theories closest related to the topic to be included in the dissertation.

We studied cross-cultural teams in order to understand the phenomena within these teams. The cross-cultural leadership theories can only be evaluated appropriately if one has a deep insight in both work team processes and cultural diversity issues. We started by collecting data about work teams and found the work of Hayes (2002) and Bakka, Fivelsdal and Lindkvist (1999) to be very helpful when writing this part of the Theoretical Framework. When writing about cultural diversity, the work of Hofstede (1984) as well as Trompenaars & Hampden-Turner (1998) were studied to explain the major differences between national cultures. When the impact of cultural diversity on work teams was discussed, we based our research mainly on Adler’s (2002) and Kovach’s (1977) research findings. The conclusion after the first part of the Theoretical Framework was that there was a significant difference between uni-cultural and cross-cultural teams.
The team performance was of great interest to us since leadership is highly performance oriented. Our study on team performance was based on Katzenbach and Smith, as well as Anderson, Hardy and West’s researches. High team performance in a cross-cultural context was very well covered by Adler and Kovach.

When we studied leadership, we strongly focused on the cross-cultural applicability. We covered leadership studies as well as cross-cultural team performance studies. There is a shortage of literature combining these two in a way that we found useful. The study conducted by Kokt (2003) on cross-cultural teams revealed the strong relationship between cross-cultural team performance and leadership style. Therefore, in the study we focused on different theories on leadership styles, and the applicability of these theories in the cross-cultural team context. We searched for a well-known theory which was supported and had been tested in cross-cultural teams before and which would be viable to modify. The theory, best fulfilling these standards, was House and Evans’s *Path-Goal Theory of Leadership*, developed in 1970, later revised by House and Mitchell in 1974 (House and Mitchell, 1974, cited by Punnett & Shenkar, 1996).

We modified this theory to suit the needs of a cross-cultural team better. The modification was based on studies conducted by Matveev and Milter (2004) and Adler (2002).

2.2.2 Experiment
In order to test our scientific hypothesis, we conducted an experimental study. The hypothesis was that there is a relationship between leadership style and cross-cultural team performance. Furthermore, that the Integration Oriented Leadership Style brings forth high cross cultural team performance. The experimental research strategy was chosen since it is most applicable in a research, concerning human behaviour (Christiansen, 2004). Even though it is a neglected research method in International Management
research, it possesses many advantages in this field (Punnet & Shenkar, 1996).

We tested whether the performance in a cross-cultural team is more positively affected by the new modified leadership style, the Integration Oriented Leadership Style, than by the original Path-Goal leadership styles. The tested leadership styles were the Integration Oriented Leadership Style, the Directive Leadership Style and the Participative Leadership Style (House & Mitchell, 1974, cited by Punnett & Shenkar, 1996).

Therefore, three identical teams, in cultural diversity respect, were formed and were given an identical assignment under laboratory experiment conditions. The use of a control group in our experiment was impossible since the control team would always be influenced by some sort of leadership, whether it was supposed to or not. The absence of controlled leadership would not guarantee a control group effect (Christensen, 2004).

In the experiment, the independent variable, leadership style, was manipulated three times. This manipulation was controlled by structured observation, which was conducted by us. In this way, we examined that the experiment team leader was implementing the right leadership style. This secured the validity of the independent variable (Christiansen, 2004). The leader in all three experiments was the same person, acting according to the implemented leadership style. This eliminated the possibility that the leader’s personality would influence the research result.

The dependent variable, team performance, was measured according to the Team Climate Inventory, TCI, technique. This technique was implemented by a participant questionnaire, which included statements from the TCI checklist (Anderson & West, 1994, cited by Hayes, 2002). This questionnaire was given to the participants after the experiment in order to measure the team’s performance. The questionnaire responses were statistically analysed in SPSS. Since our sample only consisted of 12
respondents, the statistical data collected with questionnaires could only be analysed descriptively (Saunders, Lewis & Thornhill, 2003).

The team performance was also analysed by using the method of participant observation. The experiential data was collected in order to use it in the descriptive analysis of the experiment. (Saunders et. al., 2003). The descriptive analysis was therefore based on both experiential and statistical data.

In order to secure the internal validity in the experiment design, the rivalling hypotheses had to be eliminated. The rivalling hypothesis was that the performance would not have been affected by leadership style, but by cultural diversity or diversity within the team. In order to eliminate the rivalling hypothesis, we needed to control that the caused variation in the dependent variable, team performance, could only have been caused by a change in the independent variable, leadership style. This was controlled in our research by several control techniques, which are discussed in detail in Chapter 4, where the experiment is presented (Christiansen, 2004).

The three samples were selected purposively since we needed all the teams to be identical in cross-cultural diversity. The purposive sampling does not allow us to generalise the study result. The small sample also diminished the generalisability of the result (Saunders et. al., 2003).

2.3 Scientific Approach
We adapted an interpretivistic research philosophy. The researchers using this direction are less theoretical in their generalisations of the complex world. The interpretivistic view was the most applicable for us since it does not focus on defining law-like generalisations about the complex issues of circumstances and individuals. In the interpretivistic philosophy the generalisability is not of central importance. Instead, the unpredictability is realised (Saunders et. al., 2003).
An experimental study is a quantitative research method designed to discover the effects of a pre-assumed causality (Christiansen, 2004). In our study, the experiment was used as a qualitative method, giving us data to be analysed and interpreted, but not allowing us to determine the causality or fortify the theory completely.

Further, our study can be classified as an exploratory study since we wanted to clarify our understanding of a problem. Exploratory studies are used to explain phenomena in a new light, as we are doing in the field of cross-cultural team leadership research (Saunders et. al., 2003).
Chapter 3
Theoretical Framework

The theoretical framework is presented. First, we analyse the main problems and advantages within work teams. The focus will be on culturally diverse work teams, and the differences between these and uni-cultural work teams. Second, we discuss leadership and present theories on this and evaluate which one is the most applicable on cross-cultural teams. Finally, we modify an existing theory.

3.1 Cross-Cultural teams

3.1.1 Introduction
It was in the late 20th century that team based structures, as an organisational strategy, emerged in a wider context. Modern management is highly focused on team based structures since the high potential of teamwork is commonly realised. Two of the most well-known researchers in the field of team performance, Katzenbach and Smith, have stated that high performing organisations depend entirely on the creation of strong, semi-autonomous working teams (Katzenbach & Smith, 1993, cited by Hayes, 2002).

A team-based structure refers to companies attempting to combine both horizontal and vertical co-ordination through structuring in the cross-functional teams. The organisation is a collection of teams, which are administrated by a small corporate team. One type of a team-based structure is the project-based structure, in which the teams are dissolved after the completion of the task. These structures are highly flexible, which is an organisational characteristic required in today’s dynamic environment (Johnson & Scholes, 2002).
The basic unit in team-based organisations is a work team. Work teams are defined by many researchers, but a common definition would be that a team is a small number of members with common leadership who perform interdependent jobs with both individual and group accountability, evaluation and rewards (Lussier, 2000, cited by Kokt, 2003). It is important to distinguish teams from groups. Groups can be defined as two or more members with a common leader who perform independent jobs with individual accountability, evaluation and rewards (Lussier, 2000, cited by Kokt, 2003). This distinction represents the strong commitment to a common task, large inner flexibility and strong cohesion, which occur in teams (Bakka et. al., 1999).

Teams are shown to improve staff morale and decrease staff turnover in all kinds of organisations (Hayes, 2002). This is why companies adopt team-based structures more frequently today (Johnson & Scholes, 2002). In many cases, teamwork conveys synergy, which means that the productivity of the team exceeds the productivity of individuals working separately (Syer & Connolly, 1996). Teams bring together complementary skills and experiences, which stimulate creativity of the individuals. Therefore, teams respond faster to challenges such as problem solving and new innovations (Kokt, 2003).

Even though teams possess high potential, there are factors that slow down the team process. If teams are homogeneous it is easier for them to pass the initial stages of team integration. More diverse teams and culturally diverse teams have more obstacles to overcome before they can perform to their best (Kokt, 2003).

Cultural differences left unmanaged, lead to decreased effectiveness within cross-cultural teams. The leadership of these teams is therefore crucial for the team performance (Adler, 2002).

We started our research on cross-cultural team leadership and cross-cultural team performance by studying uni-cultural work teams. We also covered
cultural differences and the impact of these differences on the team performance. Further, we studied the characteristics of a high performing team and the different techniques to measure team performance. The question about how to increase advantages and decrease disadvantages, due to cultural diversity within cross-cultural teams, has been discussed from a leadership perspective. Different leadership theories were investigated in order to find the most applicable model for a cross-cultural team leader to implement. Finally, a new leadership theory, universally applicable in cross-cultural teams, was created.

3.1.2 Nature of Work Teams

Stages of Team Development

The teamwork process follows certain patterns, which are similar in all teams. The process consists of several development stages, which are experienced by all teams during the team life cycle. The teamwork process is therefore more or less the same, even though teams vary in their way to proceed through the different development stages. Team development research recognises many variations of the basic four-stage model, which includes the formation, control, work and ending stages. (www.onepine.info/mgrp.htm 10-15-04). According to Adler’s three basic stages, the teamwork process consists of the entry, work and action stages. In the entry stage the team is formed. The process consists of the building of trust and personal relationships. During the work stage, the team has to define its work goals and objectives and analyse how to proceed in the project. Moreover, the procedures and policies of the project have to be decided. In the action stage, the team has to reach an agreement on what to do and how to do it, in order to achieve the task goals and objectives and implement their decision (Adler, 2002).
3.1.2.1 Phenomena within Work Teams

In all teams, the individual is the greatest force and the worst threat to the performance of a team. As mentioned earlier, when teams do work they possess a great potential. However, companies often do not achieve the benefits of a well functioning team. There are various factors affecting individuals in work teams, which may build barriers for high team performance. The team performance problem areas, which we have chosen to concentrate on, are:

- Conflict
- Groupthink
- Motivation
- Communication

Next, these phenomena are discussed. First, they are described in their entirety. Second, their impact on teams is explained.

**Conflict**

Conflict occurs when opinions among the team members collide. Recent research identifies two types of conflicts; task related conflicts and relationship conflicts.

- The task related conflict is disagreements about task issues, such as task goals, key decision areas and procedures.
- Relationship conflict refers to interpersonal differences including tension, animosity and annoyance.

Teams are affected differently by these conflicts. The task related conflict might be beneficial for team performance, since this type of conflict forces the team to view the task from multiple perspectives, and in this way all team members contribute to the decision. The link between improved performance and task related conflict, is agreed by many researchers, but the effect depends on the task characteristics. If the task is a non-routine tasks, the task related conflict may have a positive impact on the outcome (Jehn, 1995, cited by Chuang, Church & Zikic, 2004). On the other hand, relationship conflicts have a direct negative effect on the team work
outcome. Not only do they have a negative effect on team performance, but these conflicts might also affect ongoing task related conflicts in such a way that the team loses the positive effect of the task related conflict (Amason, 1996, cited by Chuang et. al., 2004)

**Groupthink**

The second type of performance barrier is called groupthink, where the group cohesion becomes the most important goal instead of high performance. Groupthink usually occurs when the team is isolated from the external organisation and they have high cohesion, or there is a very strong leader with a determined vision of the task goal. When teams work together on a long-term basis they have natural tendencies to adapt groupthink. It arises from the illusion of invulnerability for failure. The team members disregard all deviant opinions and therefore the members start exercising self-censorship whenever they have doubts about the decisions made by the team. This leads to the unrealistic belief of unanimity and moral superiority among the team members. If a team suffers from groupthink in the decision making process, the consequences may be very negative for the organisation (Hayes, 2002). The groupthink model is proposed by Janis, who considers all symptoms and effects of groupthink (Janis, 1982, cited by Paulus, Seta & Baron, 1996). A summary of the model is presented next.

### Table 3.1 Groupthink: Some Major Symptoms

<table>
<thead>
<tr>
<th>Symptoms of Groupthink</th>
<th>Symptoms of Defective Decision Making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illusion of invulnerability</td>
<td>Incomplete survey of alternatives</td>
</tr>
<tr>
<td>Collective rationalisation</td>
<td>Incomplete survey of objectives</td>
</tr>
<tr>
<td>Belief in morality of the group</td>
<td>Failure to examine risk of favourite choice</td>
</tr>
<tr>
<td>Stereotyping of out-groups</td>
<td>Poor information search</td>
</tr>
<tr>
<td>Direct pressure on deserters</td>
<td>Selective bias in processing available information</td>
</tr>
<tr>
<td>Self-censorship</td>
<td>Failure to reassess alternatives</td>
</tr>
<tr>
<td>Illusion of unanimity</td>
<td>Failure to work out contingency plans</td>
</tr>
<tr>
<td>Mindguards</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Paulus et. al., 1996, 283*

**Motivation**

Motivation is a great concern in most organisations, since there is a strong relationship between motivation and high performance. If the management succeeds in motivating the workforce the team members work more
effectively. There are several motivation theories that are designed to uncover the complexity of motivation. Maslow’s Hierarchy of Needs is probably the most recognised model in this field of research.

Table 3.2 Maslow’s Hierarchy of Needs

<table>
<thead>
<tr>
<th>Need Hierarchy</th>
<th>Fulfilment on the job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Actualisation Needs</td>
<td>Opportunities for training, advancement, growth and creativity</td>
</tr>
<tr>
<td>Esteem Needs</td>
<td>Recognition, high status, increased Responsibilities</td>
</tr>
<tr>
<td>Belonging Needs</td>
<td>Work groups, clients, co-workers, Supervisors</td>
</tr>
<tr>
<td>Safety Needs</td>
<td>Safe work, fringe benefits, job security</td>
</tr>
<tr>
<td>Psychological Needs</td>
<td>Heat, air and base salary</td>
</tr>
</tbody>
</table>

Source: Mendenhall, Punnett & Ricks, 1995, 586.

The team based structure originally emerged from the belief that teams increase the motivation among individuals in organisations since teams have many characteristics, which contribute to increased motivation. The physiological and safety needs are fulfilled if the team member is under normal working conditions. The teamwork offers the members possibilities to fulfil their belonging needs. If the team performs well, it is probable that the members will gain recognition, high status and increased responsibilities. To reach the highest level in the hierarchy, the member requires opportunities for training and personal growth, which means that the need for self-actualisation would be fulfilled. In this case, the motivational level of the team member is considered to be very high (Mendenhall et. al., 1995).

However, teamwork is not a guarantee for increased motivation in the work force. It should not be taken for granted that the team member identifies himself with the team. Further, if the team does not perform well, the member does not gain any recognition or higher status. The team member cannot fulfil his self-actualisation needs or experience personal growth if the organisation does not give opportunities for training (Mendenhall et. al., 1995).

Communication
Communication is the fourth factor that affects the team performance. The following figure shows the whole process of communication.

![Communication Model](image)

**Figure 3.1 Communication Model. Source: Bakka et. al., 1999, 159.**

The first phase of the communication process is the sending of a message. The sender sends the message through a channel to the receiver. The channel is the way in which the participants choose to communicate. The sent message includes both the intended message and the unintended message. The sender encodes the message, in other words produces a symbol message. Then, the receiver decodes the message, in other words receives the meaning from a symbol message. The received message differs from the sent message due to the encoding and decoding processes, as well as the disturbances. Disturbances can be non-verbal signalling, stance, gesture, eye movement or voice quality. The same factors affect the feedback from the receiver of the original message to the sender.

Communication is effective when both the sender and the receiver understand each other’s intended messages. When communication is functioning, the misperceptions are minimal (Bakka et. al., 1999).

Well functioning communication among team members has proven to be linked with high team cohesion and good performance. Effective communication is crucial in work teams since in order to reach the task goals, all team members need to be aware of the direction and the present state of the team (Hayes, 2002).
3.1.3 Diversity in Work Teams

The main idea behind teams is to integrate different professional skills. Therefore, the very essence of a team is to create diversity. (Jackson & Ruderman, 1995). Higher diversity conveys higher creativity. This is why companies have noted the importance of diversity. On the other hand, diversity also increases the problems within teams (Carson, Mosley & Boyar, 2004).

There are five different categories of diversity: demographic diversity, psychological diversity, organisational diversity, geographic diversity and cultural diversity. Demographic diversity refers to the differences based on age, gender, ethnicity and race. Psychological diversity is differences in values, beliefs and knowledge. Organisational diversity collects differences based on tenure, occupation and hierarchical level (Jackson & Ruderman, 1995). Geographical diversity means diversity of physical location, which can be found in global virtual teams (Paul, Seetharaman, Samarah & Mykytyn, 2003). Cultural diversity explains the differences based on not only race and ethnicity, but also rules of culture which include appropriate ways to behave and adapt to the environment (Kokt, 2003).

When team members have diverse demographic, psychological and organisational attributes, the team is considered as diverse. The work team phenomena discussed earlier are affected by this diversity. The cultural diversity will not be taken into the consideration here, since it will be discussed more in depth later on. Next, the impacts of diversity concerning the work team phenomena are discussed in following order:

- Conflict and diversity
- Groupthink and diversity
- Motivation and diversity
- Communication and diversity

Conflict and Diversity
Diversity contains many factors, which increase the risks of conflicts in a work team. The more diverse the members are in a team, the easier it is for conflicts to arise and the performance to become less effective (Paul *et. al.*, 2003).

*Groupthink and Diversity*

The research implicates that the groupthink is limited by diversity. This is explained by the relationship between cohesion and groupthink. Cohesion increases the risk of groupthink. On the other hand, cohesion is reduced by diversity. This means that higher level of diversity in a team reduces the risk of groupthink (Paulus *et. al.*, 1996).

*Motivation and Diversity*

There is no obvious link between diversity and motivation. The level of motivation in diverse work teams is not affected by the fact of diversity. Instead, the individuals in these types of work teams have different incentives to work more effectively, depending on their different backgrounds, which have created the diversity. Therefore, the more diverse the work team is, the more complex it is to motivate all the team members (Paulus *et. al.*, 1996).

*Communication and Diversity*

The diversity has an obvious effect on the quality of the communication. The sent message is never the same as the received message. How the message has changed on the way from sender to receiver depends on the diversity between the individuals. The path of communication is the same as when there is no diversity between the sender and the receiver to consider. However, when diversity exists, the communication process becomes more complex (Jackson & Ruderman, 1999).

3.1.4 Cultural Diversity
Defining Culture

The best known definition of culture is the one of Hofstede, who defined culture as: “The collective programming of the mind which distinguishes the members of one human group from another. Culture, in this sense, includes systems of values; and values are among the building blocks of culture” (Hofstede, 1984, 21). Culture can also be defined as a way in which a group of people solves problems and reconciles dilemmas (Trompenaars & Hampden-Turner, 1997).

3.1.4.1 Theories for Describing Cultural Differences

There are many different ways to describe cultural differences. F. Kluckhohn and F.L. Strodtbeck, 1961, have identified five categories of problems that distinguish cultures from each other (Trompenaars & Hampden-Turner, 1997). Also Laurent, 1983, have researched differences between cultures. He investigated work-related attitudes across cultures (Adler, 2002). However, we have decided to concentrate on what we understand to be two the most applicable theories in this field. These are Hofstede’s Four Dimensions of National Culture and Trompenaars’ Cultural Parameters.

Geert Hofstede’s Four Dimensions of National Culture

In 1980, Hofstede identified four dimensions that describe how different cultures vary. This model is frequently used to contrast cultures. The four different dimensions that he has labelled are Individualism vs Collectivism, High vs Low Power Distance, High vs Low Uncertainty Avoidance, and Masculinity vs Femininity, and are presented below.

Individualism vs. Collectivism

This first dimension makes a distinction in how people define themselves and how they relate to others. Individualism occurs in a culture where people view themselves as separate individuals. They set their own goals in life that respond to their own self-interests in the first place. The main focus is on taking care of themselves and the immediate family, instead of having
a large social network. Collectivism, on the other hand, is a culture where there is a strong sense of group belonging, characterised by large social networks where the members have common goals. Relationships among people are emphasised to a greater degree, and the respect for family and friends is high (Hofstede, 1980, cited by Adler, 2002).

**Power Distance**

This dimension refers to the extent to which less powerful members of an organisation accept the unequal possession and distribution of power. Power distance is divided into two categories: High vs Low Power Distance. Members of High Power Distance cultures are disciplined and highly accept levels of authority at the work place. They follow orders from superiors without questioning, since they have a strong trust in the superior’s knowledge. On the other hand, members of Low Power Distance cultures do not accept levels of authority at the work place. If they act in a certain way, they do it because they believe that this is the best way, and not because the superior gave them order to do so (Hofstede, 1980, cited by Adler, 2002).

**Uncertainty Avoidance**

The dimension of Uncertainty Avoidance describes the extent to which people within different cultures handle ambiguity and non-clear rules. Also this dimension is split up in the levels of high and low. High Uncertainty Avoidance cultures have specific rules and prevent uncertainty by rejecting deviant opinions and provide more predictability into situations. Low Uncertainty Avoidance cultures are not afraid of ambiguous situations and do not have specific rules to follow (Hofstede, 1980, cited by Adler, 2002).

**Masculinity vs. Femininity**

This dimension refers to the differences in how people from different cultures relate to the possession of material things. People within Masculine cultures value competitiveness and assertiveness in order to achieve higher material success than others. By contrast, Feminine cultures emphasise more on the quality of life, such as interpersonal relationships and concern
for others, instead of concentrating on the acquisition of money and material things (Hofstede, 1980, cited by Jandt, 1995).

**Fons Trompenaars’ Cultural Parameters**

Trompenaars’ Cultural Parameters were developed in 1993 with the purpose of analysing cultural differences. These parameters are in many ways similar to Hofstede’s dimensions of culture, although they are more developed and modernised. The different parameters Trompenaars discusses are Universalism vs. Particularism, Individualism vs. Communitarianism, Affective vs. Neutral, Specific vs. Diffuse and Achievement vs. Ascription.

**Universalism vs. Particularism**

The Universalism vs. Particularism Parameter defines how other people’s behaviours are judged. In a Universalistic culture it is highly important and valued to follow rules and regulations. All persons falling under the rules should be treated the same no matter the circumstances. In a Particularistic culture, on the other hand, the judgement of a person depends on the circumstances of the situation, no matter what the rules say (Trompenaars & Hampden-Turner, 1997).

**Individualism vs. Communitarianism**

The Parameter of Individualism vs Communitarianism illustrates to what extent people want the good of the community more than their own good. In an Individualistic culture it is valued to be independent, to make individual decisions, set individual goals and make sure to individually achieve them. In a Communitarianistic culture people work towards the good of the public. The surroundings play a significant role, and the goals set are to benefit the community (Trompenaars & Hampden-Turner, 1997).

**Affective vs. Neutral**

The Affective vs. Neutral Parameter contrasts the issue of affectional degree. In Affective cultures emotions are expressed openly and naturally. People usually talk loud and fast and gesticulate while talking. However, in
Neutral cultures feelings are carefully controlled and subdued (Trompenaars & Hampden-Turner, 1997).

Specific vs. Diffuse
Specific vs. Diffuse is the Parameter that describes to what extent other people are let into one’s life. People from Specific cultures are characterised by having a large public space, which is easy to enter, and a small private space, which consists of a few close friends. On the other hand, it is very hard to enter a Diffuse person’s public space, since the public and the private spaces are the same. Once the public space is entered, the person has easy access to the private space as well (Trompenaars & Hampden-Turner, 1997).

Achievement vs. Ascription
The Achievement vs. Ascription Parameter puts its focus on how people accord status. In an Achievement culture, it is highly valued to perform well, since high achievers are much respected and get high status. In an Ascription culture, performance is not the main issue. The respect people receive is based on how they are, and how they interact with people (Trompenaars & Hampden-Turner, 1997).

3.1.5 Cultural Diversity’s Impact on Teams
The differences mentioned above construct the base of cultural diversity. The cultural differences have a large impact on the behaviour of individuals. The enormous potential of the cross-cultural teams is produced by these cultural differences and so are the risks for total failure. The following figure is included to show the impact of cultural diversity on the team process.

\[
\text{Actual Productivity} = \text{Higher Potential Productivity} - \text{Higher Risk for Losses due to Faulty Process}
\]

Figure 3.2 Actual Productivity in Teams. Source: Adler, 2002, 139.
Actual productivity can be either higher or lower due to cultural diversity. The potential productivity is higher due to the cross-cultural advantages, which will be described in the next section. The reason why the risks for losses due to faulty process are higher is that cross-cultural teams experience more problems than uni-cultural work teams in integrating and evaluating their own performance. This causes losses in productivity. Individuals working in cross-cultural teams more frequently have problems with misperception and disagreements on the expectations of the project (Adler, 2002).

3.1.5.1 Advantages of Cross-Cultural Teams
A well functioning cross-cultural team is synergetic, which means that it is highly productive and exceeds the performance of both individuals and uni-cultural teams. Furthermore, if the cross-cultural team is managed successfully it may lead to great economic benefits for the company. The company’s ability to attract, retain and motivate culturally diverse people gives it competitive advantages in cost structures, creativity, problem solving and in adapting to change (Mead, 1998).

The factors increasing the potential productivity in cross-cultural teams, compared to uni-cultural teams, were investigated in Carol Kovach’s research, conducted at the Graduate School of Management at UCLA in 1977. She found that culturally diverse teams possess greater possibilities to positive task factors. The reason for this is that cross-cultural teams function more creatively due to the greater diversity of ideas. Diversity generates alternative solutions because of the wider range of perspectives. Increased creativity can lead to better problem definitions, better solutions and better decisions (Kovach, 1977, cited by Adler, 2002).

Diversity also forces the team members to concentrate on understanding the ideas, perspectives, meanings and arguments of others more than they would have to do in a uni-cultural team environment. Kovach has also
discovered that cross-cultural teams are rarely affected by groupthink (Kovach, 1977, cited by Adler, 2002).

There are other researchers that support Adler’s and Kovach’s findings about the increased creativity in cross-cultural teams. Marquardt and Horvath have discovered that when companies mobilise the synergy of managers from various cultures to work as a team, it may lead to multiple perspectives and more creative approaches to problems and challenges (Marquardt & Horvath, 2001, cited by Matveev & Milter, 2002). Cross-cultural teams can provide companies with significant gains in productivity (Townsend et. al., 1998, cited by Matveev & Milter, 2002).

3.1.5.2 Problems in Cross-Cultural Teams
The higher potential productivity of cross-cultural teams is often lost in the process caused by the higher risks for losses due to faulty process. The cross-cultural team work is characteristically more problematic than unicultural team work (Adler, 2002). The most characteristic problems for cross-cultural teams are reviewed next.

Many cross-cultural teams face attitudinal problems, such as dislike and mistrust. Dislike occurs since many people find it more convenient to work with people from the same cultural background. Mistrust more often arises in cross-cultural working environments towards the colleagues who do not share the same culture and the same norms of behaviour and communication (Adler, 2002).

Perceptual problems are problems caused by inappropriate stereotyping of people from foreign cultures. Stereotyping is usually done subconsciously and involves categorisation of people from other cultures and acting according to those assumptions. This is usually more typical for people from dominant cultures (Adler, 2002).

Communication problems complicate working through language difficulties, causing inaccuracy, misunderstandings and are therefore slowing down the
working process. The misunderstandings are caused by misperception, misinterpretation and misevaluation. Perception is the way in which individuals comprehend the external environment. This is affected by the individual’s background, experience, values and culture. Interpretation is the process of making sense out of perceptions. Evaluation is the way individuals judge their interpretation. Different cultures do not share the same perceptions, interpretations and evaluation standards, which leads to limited ability to understand people and situations in the cross-cultural environment (Adler, 2002).

There is a tendency in cross-cultural teams that the members experience higher level of stress than when working in uni-cultural teams. This is due to communication inaccuracies and lack of trust. Stress is therefore a consequence, arising from previously mentioned problems (Adler, 2002).

The cross-cultural team decreases effectiveness due to the time wasted on overcoming the cross-cultural differences. Members in cross-cultural teams spend time on creating group cohesion instead of working with the actual task (Adler, 2002).

The problems and advantages mentioned above result in cross-cultural teams often performing either higher or lower in the scale of effectiveness, but their performance is hardly ever average. If the cross-cultural issues are not taken into consideration, the potential productivity of the team will be diminished and losses due to the faulty process will hugely damage the team performance (Adler, 2002).

Many companies use cross-cultural teams to gain competitive advantages in the international business environment, but in order to gain advantage from these types of teams, the team leadership of the cross-cultural team have to be capable to manage the problem issues effectively (Marquardt & Horvath, 2001, cited by Matveev & Milter, 2004).
3.1.5.3 Comparison between uni-cultural and cross-cultural teams

To summarise the previously discussed advantages and disadvantages of uni-cultural and cross-cultural teams, the problem areas are presented in the following table

**Table 3.3 Problems and Diversity**

<table>
<thead>
<tr>
<th>Work Team</th>
<th>Uni-Cultural Homogenous (UCH)</th>
<th>Uni-Cultural Diverse (UCD)</th>
<th>Cross-Cultural (CC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict</td>
<td>In all teams the conflicts are usual. Less usual than in UCDs or CCs.</td>
<td>Diversity in Work teams tends to increase intra-group conflicts.</td>
<td>Relationship conflicts are characteristical for CCs, due to attitudinal and perceptual problems.</td>
</tr>
<tr>
<td></td>
<td>Diversity in Work teams tends to increase intra-group conflicts.</td>
<td>Relationship conflicts are characteristical for CCs, due to attitudinal and perceptual problems.</td>
<td></td>
</tr>
<tr>
<td>Groupthink</td>
<td>The risk to be affected by groupthink is highest in UCHs.</td>
<td>Groupthink is limited by larger diversity.</td>
<td>CCs are hardly ever affected by groupthink.</td>
</tr>
<tr>
<td></td>
<td>Motivation is not affected by diversity but the individually experienced motivation differs inside these teams.</td>
<td>Relatively little knowledge about motivation in a cross-cultural context (Mendenhall et al., 1995).</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td>Teamwork at its best increases motivation even though it is not a guarantee.</td>
<td>Motivation is not affected by diversity but the individually experienced motivation differs inside these teams.</td>
<td>Relatively little knowledge about motivation in a cross-cultural context (Mendenhall et al., 1995).</td>
</tr>
<tr>
<td></td>
<td>Diversity affects communication in various ways. More complex than in UCHs.</td>
<td>The communication is often highly complex in CCs due to cultural differences.</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Communication is less complicated in UCHs.</td>
<td>The communication is often highly complex in CCs due to cultural differences.</td>
<td></td>
</tr>
</tbody>
</table>

As seen in the table, the risk for conflict increases with the level of diversity, and is the highest in cross-cultural teams. In cross-cultural teams, especially relationship conflicts may arise due to cross-cultural attitudes and inappropriate stereotyping. Groupthink, on the other hand, moves in the different direction. It decreases with the level of diversity, and is not considered as a problem in cross-cultural teams. Motivation is not affected by diversity as such. However, the more diverse the work team is, the more difficult it is to find a method to motivate the entire team. The relationship between motivation and diversity, especially cultural diversity, has not been of major research interest. Concerning communication, which is always an issue in work teams, the diversity seems to increase the communicational problems. The communicational problems in cross-cultural teams are radically added by the language barriers and the different norms on non-verbal communication.
3.1.6 Summary

In this section we have studied team dynamics in both uni-cultural and cross-cultural teams and tried to describe the essence of effective teamwork. The phenomena affecting team performance were described. We chose to discuss four of these phenomena, which we found to have a major influence on teams. These, conflict, groupthink, motivation and communication, in different ways affect the performance of teams depending on the level of diversity amongst the team members. We could see that the risk of conflict increases with the level of diversity while the risk of groupthink decreases with the level of diversity. Both motivating and communicating become more complex with the level of diversity. Various researchers, such as Jackson and Ruderman, Paulus, Seta and Baron, for example, support these statements.

Since our focus is on cross-cultural teams, the cultural diversity and its effects were more profoundly investigated. We depended mainly on Adler’s and Kovach’s findings on cross-cultural team characteristics, since their researches are closely connected with our subject of interest. Especially Kovach’s experiment on cross-cultural teams at UCLA in 1977 gave us an insight in how team performance is affected by cultural diversity. We linked the research on uni-cultural teams, both homogeneous and diverse, with the study on cross-cultural teams. We evaluated these against each other in order to reach an understanding of whether they are affected differently by the four phenomena or not. The evaluation gave us insight in how significantly culturally diverse teams differ from uni-cultural teams.

3.2 Team Performance

3.2.1. Introduction

Since this research investigates effective leadership in cross-cultural teams, the issue of team performance is of great importance. In this section, team performance is researched. The section will introduce various theories in the field of team performance. First, the theories bound to high performing work
teams are presented. Since the focus is on cross-cultural teams, the team performance in the cross-cultural team context is covered. The section is concluded with presenting a technique to measure team performance.

3.2.2 High Performing Work Teams

Team performance can be defined as the willingness of the team members to put effort into the production of information, devices and materials by applying new knowledge, and furthermore as the generated number of new ideas, methods, approaches, inventions or applications of the team members (Cohen & Cohen, 1991 cited by Kratzer, Leenders & Van Engelen, 2004). High-performance teams are teams whose members are deeply committed to each other’s personal growth and success. High-performance teams outperform average teams and they have unchangeable and complementary skills, deeper sense of purpose, more ambitious performance goals, more complete approaches to problem solving and fuller mutual accountability than average teams (Katzenbach & Smith, 1999, cited by Matveev & Milter, 2004).

Team Performance Curve

Katzenbach and Smith have researched the impact of the team within the organisation and its value in achieving the team task effectively. They have developed the Team Performance Curve, which is presented below.

Diagram 3.1 Team Performance Curve

This curve describes and distinguishes the working group and the team, and describes the process of the working group to become a High Performance Team.

The working group may take two different courses on the way to become a High Performance Team, the movement towards a Pseudo Team or towards the Potential Team, where the Pseudo Team is the undesired result. The Pseudo Team is a group of people who work together on a purely individual level, even though the task or assignment would require teamwork. The performance of such a team is lower than the performance of the working group. When the performance of a Pseudo Team improves, it reaches the stage of the Potential Team. In this position, the group members have realised the status of the performance and try to work practices to collaborate. In the stage of the Real Team, the team members are jointly committed to a common purpose. They have shared goals and consider each other equally accountable for the team’s performance. When the Real Team reaches the High Performance Team stage it is a realisation of the ultimate team potential, which this combination of individuals possesses (Katzenbach & Smith, 1993, cited by Hayes, 2002).

*The Five Signs of High Performance Teams*

Further, Katzenbach and Smith have identified signs that determine whether a team is on the stage of the High Performance Team or not. This theory is divided into five signs of high team performance, which are themes and identity, enthusiasm and energy, event-driven histories, personal commitment and performance result.

- **Themes and identity:** Refer to the ideas in which the members express the basic purpose and the nature of the team itself. This can be shown for example through their logos, catch phrases and patterns.
- **Enthusiasm and energy:** Obviously high performance team members are positive and energetic about their work in the team. Well functioning teams generate high motivation about the work.
Event-driven histories: The team has its own history of happenings such as obstacles and setbacks. This has conveyed capabilities that will help the team to overcome problems like these in the future.

Personal commitment: Team members in high performance teams have shown to establish close personal relationships while working together. Because of the positive atmosphere from achievement, it is more likely for interpersonal bonding to occur.

Performance result: Obviously, the high performance teams have quite high performance results, since effective teams are highly performance oriented (Katzenbach & Smith, 1993, cited by Hayes, 2002).

*Four Factors in Innovative Teams*

There is another known team of researchers who have been committed to study characteristic factors in successful teams. Anderson, Hardy and West have investigated innovative teams at work and developed the theory of Four Factors in Innovative Teams. According to them, the factors allow a team to be a positive, dynamic force for change within an organisation. These factors are presented below.

- **Vision:** The team has a clear articulated idea about its ultimate purpose or goal, which is shared openly within the team.

- **Participative Safety:** The atmosphere within the team is beneficial for contributing ideas or to challenge existing practices. New ideas can be proposed without anyone feeling threatened. The atmosphere of trust within the team brings forth participation and free sharing of information.

- **Climate for Excellence:** The working atmosphere promotes achievement. All team members are focused on doing their best. The openness to ideas and constant strive towards improvement drive the team to high performance.

- **Support for Innovation:** The team welcomes new ideas and alternative approaches. The new ideas are taken seriously and the team is cooperating in order to implement them. The whole team and its leader are all committed to encourage new ideas (Hayes, 2002).
3.2.3 High Performance in Cross-Cultural Teams

Cross-cultural teams usually perform above or below average effectiveness. This was discovered by Carol Kovach’s research conducted at UCLA. The following diagram describes her findings about team effectiveness in both uni-cultural and cross-cultural teams (Kovach, 1977, cited by Adler, 2002).

![Team Effectiveness Diagram](image)

*Figure 3.3 Team Effectiveness. Source: Adler, 2002, 148.*

Highly effective and highly ineffective teams differ due to the way in which the cross-cultural diversity is managed. The absence of diversity is not a guarantee for success. Well-managed cross-cultural diversity becomes an asset and a resource for the team. Ignored cross-cultural diversity causes problems and decreases effectiveness. For the management, there are three matters to consider affecting the performance of cross-cultural teams (Adler, 2002). They are:

- Task characteristics
- Team development stage
- Leadership

**Task Characteristics**

If the task is non-routine and complex, the cross-cultural team performs better than in situations where the task is routine. Cultural diversity provides benefits when the team has a challenging task, which requires creativity and innovation. On the other hand, diversity becomes less helpful when the
work involves routine procedures, which do not stimulate cross-cultural synergy (Adler, 2002).

Development Stage

The impact of diversity on team performance varies between different development stages. When the team needs diversity in order to function creatively, the impact of cultural diversity is positive. On the other hand, when integration and cohesion are needed, the existence of cultural diversity makes the process more difficult. In the following table, the impact of cultural diversity is presented stage by stage (Adler, 2002).

<table>
<thead>
<tr>
<th>Stage</th>
<th>Team Process based on</th>
<th>Impact of Diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry</td>
<td>Using similarities and understanding differences</td>
<td>More difficult</td>
</tr>
<tr>
<td>Work Action</td>
<td>Using differences</td>
<td>Easier</td>
</tr>
<tr>
<td></td>
<td>Recognising and creating similarities</td>
<td>More difficult</td>
</tr>
</tbody>
</table>

Source: Adler, 2002, 151 (modified).

Leadership

To reach high performance in a cross-cultural team, the leadership is of great importance (Adler, 2002). However, this will be discussed more profoundly in the next part where the cross-cultural team leadership models will be presented.

3.2.4 Evaluation of Team Performance

There is a lack of reliable and simple measurement tools to evaluate team performance. This lack of appropriate techniques leads to inaccurate research results in the field of work team performance (Dyer, 1984, cited by Hayes, 2002).

The Team Climate Inventory (TCI) is an instrument, which has a promising rank of validity, reliability and applicability since it has been thoroughly researched and repeatedly tested. The TCI was developed by Anderson and West in 1994. It originates from the model of Four Factors in Innovative
Teams, which was created by Anderson, Hardy and West in 1990. There is also an implication that this team-measuring instrument can be cross-culturally applicable. It has been translated into a number of other languages and its cross-cultural validity is promising. The TCI is therefore the most helpful technique when studying cross-cultural team performance (Anderson & West, 1994, cited by Hayes, 2002).

The TCI tests whether the team has the factors that promote innovation within the team. The test can be conducted by questionnaires, which are based on the team innovation checklist. These questionnaires are developed in order to determine whether these factors are present in a team or not (Anderson & West, 1994, cited by Hayes, 2002). The team innovation checklist is presented next.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>Does the team have a clearly articulated vision?</td>
</tr>
<tr>
<td></td>
<td>Is the vision clearly stated?</td>
</tr>
<tr>
<td></td>
<td>Was the vision negotiated by the whole team?</td>
</tr>
<tr>
<td></td>
<td>Is the vision attainable?</td>
</tr>
<tr>
<td>Participative Safety</td>
<td>Do the team members share information fully?</td>
</tr>
<tr>
<td></td>
<td>Do all team members participate in decision making?</td>
</tr>
<tr>
<td></td>
<td>Are team members ready to propose new ideas?</td>
</tr>
<tr>
<td></td>
<td>Do team members discuss work related anxieties and successes?</td>
</tr>
<tr>
<td></td>
<td>Is there a climate of trust within the team?</td>
</tr>
<tr>
<td>Climate for Excellence</td>
<td>Is excellent team performance of central importance?</td>
</tr>
<tr>
<td></td>
<td>What procedures and methods are used to improve the team performance?</td>
</tr>
<tr>
<td></td>
<td>Are all team members committed to excellent standards?</td>
</tr>
<tr>
<td></td>
<td>Are team members prepared to discuss opposing ideas?</td>
</tr>
<tr>
<td>Support for Innovation</td>
<td>Do team members support new ideas?</td>
</tr>
<tr>
<td></td>
<td>Do team members co-operate to implement new ideas?</td>
</tr>
<tr>
<td></td>
<td>Does the team leader support and encourage new ideas?</td>
</tr>
<tr>
<td></td>
<td>Does the team leader offer practical help to develop new ideas?</td>
</tr>
</tbody>
</table>


### 3.2.5 Summary

The team performance and the characteristics of a high performing team were examined in this section. The focus of the study was on cross-cultural
team performance, whereas the theories are mainly developed for uni-cultural teams. We discussed Katzenbach and Smith, who have studied team performance in a traditional sense. They have presented the team performance curve, as well as high performing team characteristics. Also, Anderson, Hardy and West’s research on Four Factors in Innovative Teams is a theory that we found to be very helpful. Adler, on the other hand, provided us with the most information about cross-cultural team performance. The measurement technique of team performance has been researched by Anderson and West. Their TCI technique was introduced in the end of this section. All of these theories have contributed to our understanding on how to evaluate the performance of a cross-cultural team.

3.3. Cross-Cultural Team Leadership

3.3.1 Introduction
While studying cross-cultural teams, we reached the conclusion that the priorities of a cross-cultural team leader differ significantly from those of a uni-cultural team leader. Therefore, we assume that uni-cultural team leadership theories can only be applicable after the process of modification. This chapter will be dedicated to the finding of the most suitable leadership theory to implement on a cross-cultural team.

We start by defining work team leadership and discussing the effect of cultural diversity on leadership. Then, we present theories, which might be suitable to implement in cross-cultural teams.

3.3.2 Work Team Leadership
Leadership has existed in all cultures throughout history. The leadership philosophy was found already in writings from the Greek classic era. Modern leadership research has generated an extensive amount of theories, which contribute to a better understanding of leadership in its entirety (Punnett & Shenkar, 1996).
Leadership has to be distinguished from management, even though there is a strong connection. These terms are often used synonymously even though there is an obvious distinction. The team manager can be defined as a person with external responsibility for the team within the organisational structure. The team leader, on the other hand, is the internal authority, responsible for the team. Therefore, the responsibilities of the management are entirely different from those of the team leader. The management empowers the team leader to lead the team. Empowerment means a shift in power and authority within the organisation, and can also be described as the process of delegation. When the team leader and the team have been empowered, they have been given areas of responsibility and the ability to make real decisions. These areas have boundaries, set by the external authority, the management, which in the first place determines the direction and the policy (Hayes, 2002).

The management and the leadership have different core processes. When the management produces predictability, the leadership produces organisational change. Leaders develop visions for the future and strategies for making necessary changes. They communicate and explain the vision and also motivate and inspire people to attain the vision (Yukl, 2002).

3.3.2.1 Cross-cultural leadership
Despite the fact that leadership is of such a great research interest, there are relatively few empirical studies made on cultural diversity’s impact on leadership (Punnett & Shenkar, 1996). Leadership is affected by cultural differences, as are the processes within work teams, which we came to realise earlier. Cultural differences affect the way in which leadership and the ideal leader are viewed by the team members. Leaders behave differently depending on the composition of the cultural dimensions in their specific culture. The team members, on the other hand, regard the leader according to their own compositions of cultural dimensions. Individualism
vs. Collectivism is the most important dimension when the concept of leadership is concerned (Punnett & Shenkar, 1996).

The contemporary cross-cultural leadership research has been mostly comparative, which means that the goal of the researcher is to test the similarities and differences across two or more cultures. However, there is a lack of research on cross-cultural leadership, which could be universally applicable (Punnett & Shenkar, 1996).

3.3.3 Leadership Theories
Kokt (2003) studied cross-cultural teams, in order to discover the impact of cultural diversity on work team performance. Her case study was conducted in South Africa where a highly culturally diverse environment is found. The research result indicated that the prominent factor affecting team performance is the leadership style. The problems due to cultural diversity were diminished by a certain type of leadership (Kokt, 2003).

Kokt’s research findings highlighted the importance of the right leadership style in cross-cultural teams. Her result is supported by Adler, who claims leadership behaviour to be one of three major elements affecting cross-cultural team performance, along with task characteristic and team development stage (Adler, 2002).

Encouraged by these findings, we looked into different leadership styles. The standards for choosing the appropriate theory were that it is well known, has received empirical support, has been tested with success in cross-cultural team studies before, and would be viable to modify.

Leadership Style Theories
We studied several theories on leadership styles. A classic view on leadership styles, developed in 1939 by Lewin, identified three different styles of leadership concerning particularly the process of decision making. These leadership styles, namely autocratic, democratic and laissez-faire,
were highly influential during the early modern era. Another well-known leadership style theory was developed by McGregor in the late 1950’s. His theory, X-Y Management, defined X and Y leaders based on the extent to which the leader trusts the work of the subordinates (Bakka et. al., 1999). Likert’s leadership style theory, developed in 1960, identified four main leadership styles, based on how the leader behaves in decision making and to which degree the employees are involved in decisions. In Fiedler’s Contingency Theory of Leadership, 1967, the leadership styles differentiated between task motivated leaders and relationship motivated leaders (Yukl, 2002). The Vroom and Yetton model of leadership, 1973, identified different leadership styles based on the decision quality and decision acceptance, creating autocratic and participative leadership styles. The Path-Goal Theory, 1974, consists of four different leadership styles, namely the Participative, Directive, Achievement Oriented and Supportive leadership styles. Howell, Dorfman and Kerr, 1986, developed the Leadership Substitutes Theory, which is considered as an extension of the Path-Goal Theory (Punnet & Shenkar, 1996).

However, among the theories of leadership styles that we have studied, we found the Path-Goal Theory of Leadership (Punnett & Shenkar, 1996) to be the only theory that fulfils the earlier mentioned standards in a satisfying way.

3.3.3.1 Path-Goal Theory of Leadership
We start by describing the theory in its original form. The Path-Goal Theory was developed by Evans and House in 1970. It is a theory where the leader’s primary function is to motivate the team through increasing individual rewards for work goal achievement and to support the team members on their path to the goal. The Path-Goal leader is expected to clarify team member roles, increase the resources, remove roadblocks and increase opportunities for personal satisfaction (Evans & House, 1970, cited by Punnett & Shenkar, 1996).
The original Path-Goal Theory was modified by House and Mitchell in 1974. The four specific leader behaviours were created. These leadership styles are Directive, Supportive, Achievement Oriented and Participative leadership. The theory considers both the characteristics of the team members and characteristics of the task and environment. The team member characteristics refer to competence and personality needs, while the task and environment characteristics refer to the task structure and complexity. These together determine the appropriate leadership style.

The figure below presents how the different factors interact to create team performance and work satisfaction among the team members. In the theory, team member characteristics and task and environment characteristics are referred to as situation variables (House & Mitchell, 1974, cited by Punnett & Shenkar, 1996).

The Path-Goal Theory was developed to predict team members’ motivation, satisfaction and performance as outcomes resulting from the four different leadership behaviours. Below, the four leadership styles are described.

- **Supportive Leadership** focuses on the relationship with the team members. The leader considers the needs of the team members, shows concern of the well fare, is open and approachable, and treats the
members equally. This contributes to the team members’ self esteem, which is the wanted impact of the supportive leadership style. This approach is most suitable when team members lack self confidence and the work is stressful, boring or risky.

- **Directive Leadership** focuses more on the task. The leader clarifies what is expected and gives strict directions to follow concerning procedures, schedules and gives appropriate guidance throughout the process. The goal for the directive leader is to clarify the path leading to the task goal and to increase the sense of security amongst the team members. This approach is most suitable when the task is unstructured and complex, and when the team lacks experience.

- **Achievement Oriented Leadership** concentrates on setting challenging task goals. The achievement oriented leader seeks continuously improvement in work and expects the highest performance. The leader trusts the team’s ability to achieve according to his high standards. This approach is most suitable when the task lacks challenge as in routine assignments.

- **Participative Leadership** deals with team members who are experts in their field of work. The participative leader consults with the team members and takes their advice into account in decisions and tries to clarify the needs of his work team as well as change the rewards in order to reach performance (Yukl, 2002).

The Path-Goal Theory has its starting point in the assumption that a leader can adopt any of these leadership styles, and that the choice should be based on the situational factors (Yukl, 2002).

The Path-Goal Theory is very interesting in a cross-cultural context since culture can be seen as the ultimate situational moderator (Triandis, 1993 cited by Punnett & Shenkar, 1996). The theory has been tested to discover whether it works in other cultures. In 1985 Al-Gattan studied the Path-Goal Theory in Saudi Arabia and found it to be relatively applicable on the Arabic culture. The Path-Goal Theory was also tested by Dorfman and Howell. However, they researched whether the culture changes the impact
of leadership behaviours by comparing the differing effects of leadership among several countries (Punnett & Shenkar, 1996).

We do not find these researches very helpful since the theory has not been tested with a universal approach, which is our primary aim. Only the applicability of the Path-Goal Theory from culture to culture has been tested instead of the theory’s applicability on a team with different cultures. This is not helpful in modern situations where leaders face cross-cultural teams with multiple cultural backgrounds. In order to manage these teams, a leadership style that functions in any composition of cultures, is needed.

3.3.4 Summary

The Cross-Cultural Team Leadership section was introduced by defining the concept of leadership. Having the focus on cross-cultural team performance, the field of cross-cultural team leadership was investigated. We found that researchers have concentrated relatively little on the universal approach of cross-cultural leadership. Instead, there is a great amount of studies conducted comparatively or ethnocentrically.

A major impact on our research was the study conducted by Kokt in 2003. Her research finding showed that the leadership style has a crucial impact on team performance in cross-cultural teams. This gave us an insight in what to concentrate on when studying cross-cultural team leadership. In her study, Kokt did not attempt to determine the best leadership style, instead she highlighted the importance of it. Therefore, we studied other researchers to examine different leadership styles.

The different leadership styles were studied and we found the Path-Goal Theory to be the most suitable for our purpose since it is widely known and has academic reliability. Also, it has been tested in a cross-cultural team context with good results. However, our goal was to find the most effective leadership style for a cross-cultural team leader. The Path-Goal Theory does not consider cross-cultural diversity, although it is viable for modifications.
3.4 Creating Leadership Style

3.4.1 Introduction
We finished the previous section by stating that the Path-Goal Theory does not consider cross-cultural diversity. Nevertheless, this theory is viable for modifications, and therefore we in this chapter will create a leadership style as a modification to the original Path-Goal Theory. This modification and its purpose are the primary issues discussed in this final section of the Theoretical Framework.

3.4.2 Developing the New Leadership Style
As Triandis (1993) suggests, culture can be seen as an ultimate situational factor. When an appropriate leadership style is found for this particular situation, it will facilitate the leadership of a cross-cultural workforce. Since we have studied high performing cross-cultural teams, we have gained insight in their particular situational factors. We can therefore assume that none of the four leadership styles in the Path-Goal Theory would bring forth the best possible performance of the cross-cultural team. This is why we will create a new leadership style, especially applicable on a cross-cultural workforce. This leadership style will be based on our previous study on cross-cultural team characteristics. The theory’s variables will be presented next.

- Situation
- Impact on Team Member
- Leadership Style

Situation
The situation, for which we want to create a new leadership style, has to combine both the work team context and the cultural diversity. The main
characteristic of cross-cultural team members is the lack of team cohesion due to cultural diversity. The task characteristics of a cross-cultural team are complex and innovative, since cross-cultural teams are not usually successful in implementing routine assignments, but have high potential for problem solving and new innovation (Adler, 2002). This was discussed in an earlier section of the Theoretical Framework, where the most suitable task characteristics for cross-cultural teams were described. The fifth situational factor will be referred to as a Cross-Cultural Team Situation and this situation occurs when the team lacks cohesion due to the cultural diversity and the task assignment is complex and innovative.

**Impact on Team Member**

In order to create an appropriate cross-cultural team leadership style, the desired impact of the leadership on the team members had to be determined. We had to take the problems of a cross-cultural team into consideration when deciding what the most beneficial impact on the team member would be. In the following table we show a comparison of uni-cultural and cross-cultural team problems. These problem areas have to be considered when deciding the priorities of a cross-cultural team leader. The creation of the new leadership style will be based on these priorities.

<table>
<thead>
<tr>
<th>Uni-Cultural Teams</th>
<th>Problems</th>
<th>Cross-Cultural Teams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate</td>
<td>Conflict</td>
<td>Significant</td>
</tr>
<tr>
<td>Significant</td>
<td>Groupthink</td>
<td>Small</td>
</tr>
<tr>
<td>Varying</td>
<td>Lack of Motivation</td>
<td>Varying</td>
</tr>
<tr>
<td>Moderate</td>
<td>Gaps in Communication</td>
<td>Significant</td>
</tr>
</tbody>
</table>

**Conflict**

Conflict prevention is more important in a cross-cultural team than it is in uni-cultural teams since conflicts arise easier in more diverse work teams. Both task related conflicts and relationship conflicts arise more frequently in a cross-cultural team. However, the task-related conflict in these teams might affect the team output in a positive way. The relationship problems, on the other hand, always affect the team negatively. This is due to increased attitudinal and perceptional problems, which unfortunately are
very common in cross-cultural teams. How to build group cohesion is therefore an important aspect of cross-cultural team leadership (Adler, 2002).

*Groupthink*
Avoidance of groupthink should not be a primary concern to the cross-cultural team leader since groupthink as a phenomenon is limited by the cultural diversity (Adler, 2002).

*Motivation*
To increase motivation has to be of high priority for a cross-cultural team leader since it is highly difficult to motivate cross-culturally. The leader should not make assumptions about what motivates the cross-cultural workforce because in different cultures, different rewards are desired. The motivation theories, such as Maslow’s Hierarchy of Needs, describe the motivation according to the western point of view. Therefore, these types of theories are not giving a correct picture of the workforce’s needs (Mendenhall et. al., 1995).

*Communication*
To decrease gaps in communication should also be a priority for a cross-cultural team leader. Cross-cultural communication conveys misunderstanding caused by misperception, misinterpretation and misevaluation. Communication is affected by cultural diversity by increasing the risks of inaccurately transmitting of messages. People from different cultures see, interpret, evaluate and act differently. This is something a competent leader understands and acts upon (Adler, 2002).

Based on this, the most important priority for a cross-cultural team leader should be to increase cohesion within the team and find a way to motivate across cultures. Therefore, the desired impact on the team member will be labelled as *Increase Cross-Cultural Cohesion & Motivation.*

*Leadership Style*
In order to increase cross-cultural cohesion and motivation, the leader has to be universally regarded as an ideal leader. The ideal leader is characterised differently across cultural boundaries (Punnett & Shenkar, 1996). We looked into different researchers’ opinions concerning cross-cultural leader characteristics. Matveev and Milter (2004) claim that cross-cultural cohesion is most easily achieved by an interculturally competent leader. In their Intercultural Competence Model (IC Model) they suggest that three components of capabilities are required of the leader. These are wide cultural knowledge, communicational and behavioural skills which contribute to the understanding of the team task components amongst the team members, and personality orientation which refers to positive cross-cultural attitudes and cultural empathy.

Adler has several suggestions, which are developed to help integrating cultures within cross-cultural teams. First, she suggests the leader to acknowledge the cultural diversity rather than trying to ignore the differences. The leader should invite the team members to describe their own cultures without either interpreting or evaluating it. In this way the team members become aware of their own stereotypes and the ways in which they can limit this stereotyping. The increased understanding and respect subsequently convey cultural synergy. Leaders need to help the team to agree on the goal. As teams generally produce better ideas if all members are included, the leader must try to involve each member, regardless of the cultural dominance. A team leader should distribute power according to each member’s ability to contribute to the task, not according to the cultural hierarchy. The team leader should try to minimise skill-related diversity when building the team. To encourage effective teamwork, positive feedback is crucial for the cross-cultural team members since it helps them to feel group belonging (Adler, 2002).

The leadership style best suited for a cross-cultural team will be based on these theories. The leadership style will be labelled as the Integration Oriented Leader. The behaviour of an Integration Oriented Leader should have the characteristics of Directive, Participative and Supportive Leaders.
As a Directive Leader, he should be clear in communicating what is expected and how to achieve the task goals. As a Participative Leader, he should distribute power according to the team members’ skills and capabilities. Like a Supportive Leader, he should include all team members and provide positive feedback whenever possible. The Integration Oriented Leader should have a cross-cultural mindset and he should invite the team to a cultural discussion at the beginning of the teamwork. This should be done in order to make the team aware of its cultural differences and increase the respect and understanding amongst the team members. Finally, the role of an Integration Oriented Leader is to help the team members to agree on the task goal.

The following figure shows our modification of the original Path-Goal Theory.

![Figure 3.5 Modification of Path-Goal Theory](image)

<table>
<thead>
<tr>
<th>Situation</th>
<th>Leadership style</th>
<th>Impact on team member</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-Cultural Team Situation</td>
<td>Integration Oriented</td>
<td>Increased Cross-Cultural Cohesion &amp; Motivation</td>
<td>Team performance &amp; Individual work satisfaction</td>
</tr>
</tbody>
</table>

3.4.3 Summary

We have now created a modification to the original Path-Goal Theory. This modification considers a fifth situational factor, which is labelled as the Cross-Cultural Team Situation. With this as a starting point, we then evaluated what the desired impact on the team members should be. To increase the Cross-Cultural Cohesion and Motivation was considered to be the most desired impact of the leadership style. We looked back on our previous research on cross-cultural teams and the main problems within these teams, in order to set the leadership priorities. The new leadership
style, suitable for this fifth situation, was created according to this study and labelled as the Integration Oriented Leader. The modification of the Path-Goal Theory, the new leadership style, was mainly influenced by Adler’s, Kokt’s and Matveev and Milter’s researches in this field of cross-cultural team leadership.

Chapter 4
Experimental Research
The Experimental Research is presented. We will start by describing the Experimental Method where the entire process is explained. Further, the results for each sample are presented and the Experiment Analysis is discussed. Finally, the Experiment Conclusion is presented.

4.1 Experimental Method

4.1.1 Introduction
In the previous chapter, we researched theoretically what kind of leadership that would contribute to the highest performance in cross-cultural teams. We created a new leadership style, which we believe to be universally applicable to implement on cross-cultural teams. In order to determine whether this new, created leadership style is applicable, we conducted an experimental study to test our suggested theory.

We chose to conduct an experiment, since this research strategy would give us the most correct picture of cross-cultural team interaction. It would give us the opportunity to study the leadership styles’ impact on cross-cultural team performances in real life simulations. Experiment as a research strategy is quite neglected in the field of international management and intercultural organisational research. Experimental studies of culture have important advantages, which have been largely ignored in the international management literature (Punnett & Shenkar, 1996).

In this chapter the whole experiment process is presented instead of dividing the research design and result of the conducted experiment in two. The priority in our writing has been to be as clear as possible in order to assure that the criterion of replication would be fulfilled, since this is of great importance when reporting about experiments (Christiansen, 2004).

The chapter is introduced with the description of experimental method. We start by determining the scientific hypothesis, variables involved in the
experiment and how these were controlled. The experimental process is
described in its entirety, and the process of data collection is presented. We
present the experiment data for each team, including leadership style
evaluation, the experiential data and statistical data. Further, this data is
compared and analysed. Finally, the conclusion of the experiment is
presented.

4.1.2 Scientific Hypothesis
The study was designed to investigate whether cross-cultural team
performance is affected by leadership style. In the experiment we tried to
determine whether there was a difference in the team performances due to
the different leadership styles. Our scientific hypothesis was that there is a
difference in team performance due to leadership style and that the created
leadership style, the Integration Oriented Leader, would lead to the best
team performance. Therefore, the null hypothesis was that there is no
relationship between leadership style and team performance (Christiansen,
2004).

The original plan was to test all five different leadership styles. Four of
these styles, namely the Supportive, Directive, Achievement Oriented and
Participative Leadership styles, were developed by House and Mitchell in
1974 (Punnett & Shenkhar, 1996). The fifth leadership style, the Integration
Oriented Leader, was created by us. However, along the way, we noticed
that we would not have enough participants to be able to test all five
leadership styles. We had to prioritise and choose three leadership styles of
these five.
Apart from testing our own Integration Oriented Leader, we chose to test
the Directive leadership style and the Participative leadership style. The
Directive leadership style was chosen since this approach is most suitable
when the task is unstructured, complex or the team lacks experience.
Therefore, the situational factor of the Directive Leader is quite similar with
the setting of a Cross-Cultural Team Situation. We abandoned the
Supportive leadership style since this approach is most suitable when team
members lack self-confidence or the task is stressful, boring or risky. As pointed out in the Theoretical Framework, cross-cultural teams never perform well when the task is not challenging. Therefore, the Supportive leadership style could not be suitable for a cross-cultural team. For the same reason, we also chose not to test the Achievement Oriented Leader. This approach is most suitable when the task is a matter of routine. On the other hand, we found it interesting to test the Participative leadership style since it differs significantly from the Integration Oriented Leader and it could function with a complex task assignment (Adler, 2002).

As stated before, our scientific hypothesis was that the Integration Oriented leadership style would lead to the best team performance. This hypothesis would be proven to be correct if the team, which was led by the Integration Oriented Leader, would reach the best performance. In order to prove this, we needed to be able to reject the null hypothesis and eliminate the rivalling hypothesis (Christiansen, 2004). The rivalling hypothesis concerning our study was that the performance would not only be affected by leadership style, but by cultural diversity or diversity within the team as well.

4.1.3 Research Variables

In the experiment, the independent variable, leadership style, was manipulated three times and the dependent variable, team performance, was measured in order to investigate the impact of the manipulation.

The variables present in the experiment will be discussed next in the following order.

- Independent Variable, Leadership Style
- Dependent Variable, Team Performance
- Extraneous Variables, Diversity and Cultural Diversity

**Independent Variable, Leadership Style**
The leadership was varied by using the technique of event manipulation. The event manipulation was conducted by implementing three different leadership styles in three teamwork simulations (Christiansen, 2002). The variation consisted of Integration Oriented leadership style, Participative leadership style and Directive leadership style.

Construction of the Independent variable
The leadership style construction followed the same guidelines we presented in the Theoretical Framework for each of these leadership styles.

Integration Oriented Leader
- Invites the team to a cultural discussion in the beginning of the teamwork session.
- Is clear in communicating about task goal.
- Helps the team members to agree on the task goal.
- Distributes power according to the team members’ skills
- Includes all team members
- Provides positive feedback whenever possible (Yukl, 2002).

Directive Leader
- Focuses on the task.
- Clarifies what is expected
- Gives strict direction concerning procedures, practices and schedules (Yukl, 2002).

Participative Leadership
- Deals with team members who are experts
- Consults with the team members
- Takes the members’ advice into account in decisions
- Clarifies the needs of the team
- Reminds of rewards in order to reach performance (Yukl, 2002).
The three leadership styles were all performed by the same person, who acted according to the characteristics of these leadership styles. This was implemented since the Path-Goal Theory has its starting point in the assumption that any person can perform any of these leadership styles (Punnett & Shenkar, 1996). Using the same person as a leader secured that the leader personality did not change the performance.

Reliability of the Independent Variable
The reliability of the leadership style is high concerning the original Path-Goal leadership styles since these have been tested successfully and are well established. Concerning the Integration Oriented Leadership style, the guidelines presented in this dissertation secure a moderate level of reliability. The leadership style manipulation is possible to repeat by following the guidelines of the Integration Oriented leadership style (Christiansen, 2004).

Validity of the Independent Variable
The correctness of the implemented leadership style was secured by structured observation. This raised the level of validity of the independent variable to a desirable level (Christiansen, 2004).

Dependent Variable, Team Performance
The dependent variable, team performance, measures the effect of the independent variable, leadership style. This is a variable which is not directly observable. Therefore, various techniques were used to determine the change in this variable. We observed team performance by a participant questionnaire, as well as a participant observation. Therefore, we received both statistical and experiential data from the experiment (Christiansen, 2004).

Construction of the Dependent Variable
In order to construct the dependent variable, team performance, we used the Team Climate Inventory (TCI) as an instrument. TCI was presented in the Theoretical Framework, where the team performance was discussed. We
chose this technique due to its cross-culturally validity. The questionnaire that our statistical data was based on was developed from the TCI and can be found in the appendices. Following, a summary of the TCI checklist is presented.

Vision
- The team has a clear vision
- The vision is negotiated by the whole team

Participative Safety
- The team members share information fully
- All the team members participate in decision making
- All the team members propose new ideas
- There is a climate of trust within the team

Climate for Excellence
- Excellent team performance is of central importance
- All team members are committed to excellent standards
- All team members are prepared to discuss opposing ideas

Support for Innovation
- Team members co-operate to implement new ideas
- The team leader supports and encourages new ideas
- The team leader offers practical help to develop new ideas

Reliability of the Dependent Variable
We cannot determine the reliability of the dependent variable since it was measured only once for each leadership style. In order to have reliability we should have repeated each of the tests and received almost the same result every time (Christiansen, 2004).

Validity of the Dependent Variable
The validity of the dependent variable depends on the validity of the measuring technique (Christiansen, 2004). The TCI has established validation and has shown to have cross-cultural validity as well (Hayes,
Therefore, we can determine that our dependent variable, team performance, is valid.

**Extraneous Variables**

Extraneous variables are all the variables other than the independent variable, leadership style that can influence the dependent variable, team performance (Christiansen 2004). In our experiment, the extraneous variables were diversity and cultural diversity. Since we studied cross-cultural teams, the variable of cultural diversity was inevitable.

To eliminate the rivalling hypothesis, we needed to prove that diversity, or cultural diversity within the teams, were not causing the change in team performance. To exclude this causality we used the control technique of matching by holding variables constant (Christiansen, 2004). The demographic, psychological, educational and organisational diversities were kept constant in all teams (Jackson & Ruderman, 1995). To determine the constancy of cultural diversity, we used the classification of national cultures, based on Hofstede’s Cultural Dimensions. We chose the Individualism vs. Collectivism dimension as a starting point, since this is the most important dimension concerning leadership (Punnet & Shenkar, 1996). The Power Distance dimension was used as well, since it has a great impact on the relationship between the team member and the leader (Adler, 2002).

With this classification as a sorting tool we formed identically diverse cross-cultural teams by selecting one person from each of the cultural classifications. A summary of this classification is presented in the following table.

*Table 4.1 Classification of National Cultures*

<table>
<thead>
<tr>
<th>Large Power Distance/Collectivistic</th>
<th>Large Power Distance/Individualistic</th>
<th>Small Power Distance/Individualistic</th>
<th>Small Power Distance/Highly Individualistic</th>
</tr>
</thead>
</table>

Control Techniques

Control techniques are used to reach the desired level of control and to secure the internal validity of the research (Christiansen, 2004). We implemented several control techniques in the experiment, which were chosen according to how well they suited for the experiment. These control techniques are presented next in the following order.

- Matching
- Control of Participant Effects
- Control of Experimenter Effects

Matching

We needed to exclude the effect of extraneous variables on the team performance. Therefore, equating of the teams on diversity and on cultural diversity had to be made. The matching was conducted by holding these variables constant. All the participants were selected inside a particular diversity criterion and placed into the teams, creating identical teams in a diversity respect. The cultural diversity variable was held on the same level by using the classification of national cultures by Hofstede. (Christiansen, 2004)

Control of Participant Effects

The participants can be influenced by their personal motives when they attend an experiment. They might respond in a certain way to fulfil these motives but this can mislead the research result. To prevent this, we provided all the participants with false information about the rationale of the experiment. This method, deception, is a reliable technique to use when controlling the potential bias due to participant effects (Christiansen, 2004).

Control of Experimenter Effects
There are possible bias caused by the experimenters. In order to diminish the experimenter effects, we produced all the recordings of the observations in double. When there are two observers, as in our experiments, the risk of recording errors decreases (Christiansen, 2004).

4.1.4 Experimental Process

The experimental process started by defining the scientific hypotheses and the variables. It continued with selecting the control techniques in order to secure the validity and reliability of the experiment. After this, the practical process of the experiment started. This process included the matters of contacting participants, deciding the test practices and data collection. Next, the process is described in detail in the following order:

- Participants
- Assignment and Circumstances

Participants

Our experiment cannot be generalised as to the universal population since the sampling was not conducted randomly. Instead, the experiment sampling was conducted in order to meet the requirements of constant, low diversity and constant, high cultural diversity. This sampling technique is called purposive sampling. It is the most suitable technique when studying key themes such as cross-cultural teams. This is a non-probability sampling, which does not give a high generalisability (Sanders et al., 2003). The individuals in the experiment teams were students at Kristianstad University, who were purposively recruited. The attributes of diversity as age, education, skills and experience were surveyed in order to reach minimal diversity within the experiment teams. When these cross-cultural experiment teams were put together, one student was chosen from each of the four groups in the Classification of National Cultures. In this way, we matched the cultural diversity at the desired level.

Assignment and Circumstances
In order to test the leadership styles against each other, the teams needed to perform an identical assignment in identical circumstances so the team processes would be possible to evaluate. We chose a complex task since cross-cultural teams have a better capability to solve complex tasks than routine tasks (Adler, 2002).

The common assignment for the experiment teams was to create a framework for a new educational program for the Department of Business studies at Kristianstad University. This assignment demanded creativity and co-operation from the team members. Therefore, it was a suitable assignment to use in order to receive appropriate information to evaluate the team performances. The program, which all the teams were to design, would serve the needs of international students who are planning to have a working career in Sweden. Also, it should prepare any student from any cultural background to integrate into the Swedish labour market and match the needs of the Swedish labour market in general.

The assignment consisted of two parts, namely a written assignment and the design of an advertisement. In the written assignment the teams decided the consistence of the program and discussed how the labour market for this kind of education looks right now. They also motivated why this program would be an interesting project for the Business Department at Kristianstad University. The second part of the assignment was to design an advertisement for the new program, which would stimulate student interest. All the teams had similar circumstances when performing the assignment. The experiment was conducted in a laboratory settlement, which means that they were observed in an isolated environment and had no interaction with external factors during the 2.5-hour experiment (Christiansen, 2004). The teams had access to one computer and the Internet and they were all given the same additional information about the University’s present activities. The completed assignments for each team are to be found in the appendices.
4.1.5 Data Collection

As mentioned earlier, we collected both experiential and statistical data from the experiment. The data collection for the descriptive analysis was conducted by different methods (Christiansen, 2004). The data collection methods are presented next.

- Experiential Data Collection
- Statistical Data Collection
- Data Collection for Controlling the Experiment Validity

Experiential Data Collection

The data collection was conducted by the means of Participant Observation. The observer role chosen to adapt was Observer as Participant, which means that the researcher’s identity is revealed to the participants and the researcher does not take part in activities. This allowed us to concentrate on the data collection process in depth (Saunders et al., 2003).

The experiential data consisted of our perception of the teamwork process. Both observers kept diaries during the experiment and noted all events, changes in atmosphere, attitudes and participant relationships (Saunders et al., 2003).

Reliability and Validity of the Experiential Data

Experiential data can be classed as descriptive observation (Robson, 2002 cited by Saunders et al., 2003). Descriptive observation gives a high ecological validity since this method allowed us to study cross-cultural team integration in its natural context. Ecological validity can be referred to as the extent to which the result of a study can be generalised across settings. Since our experiment created a laboratory setting for a universal cross-cultural team, the experiment possessed a high degree of ecological validity (Christiansen, 2004).

Statistical Data Collection

The statistical data was collected with participant questionnaires. The questionnaire was designed to determine whether there is a relationship between team leadership style and team performance. Further, it was
designed to differentiate the teams from each other according to the performance scores. Therefore, the produced statistics are inferential. Inferential statistics are procedures that are used to draw inferences from the collected data. To analyse the data, SPSS was used. (Brace, Kemp & Snelgar, 2000).

The questionnaire consisted of twelve statements, all bound to the TCI technique. The participants evaluated the truthfulness of the statements on a scale from one to five. The questionnaire can be found in the appendices.

The statistical data was analysed with non-parametric tests, which are suitable for researches with a small sample size. The statistical test, which was used to test the scientific hypothesis, that there is causality between leadership style and cross-cultural team performance, was the Kruskal-Wallis test. This test is used when there are more than two samples, and the distribution consists of less than 30 respondents (Brace et al., 2000).

**Reliability and Validity of the Statistical Data**

The reliability is impossible to determine since there is only one test for each manipulation of independent variable. The reliability would have been higher if we had conducted more tests for each manipulation and the majority of the responses would have been on the same level (Saunders et al., 2003).

The validity of the questionnaire is on a good level, since the measuring tool, TCI, which the questionnaire is based on, is cross-culturally valid. The greatest threat to the validity of the statistical data is that the participants may have had different ways to perceive situations. Therefore, these differences might have influenced the results of the questionnaire (Saunders et al., 2003).

**Data Collection for Controlling the Experiment Validity**

In order to control the validity of the independent variable, we used structured observation. A coding schedule was designed to observe the different leadership styles and the correctness of the implementation. This
guaranteed us a high validity of the independent variable (Saunders et. al., 2003). The schedule is to be found in the appendices.

4.2 Experiment Data

4.2.1 Introduction
In this section we will present the experiment results for each experiment team, starting with the Participative leadership team and continuing with the Integration Oriented leadership and Directive leadership teams. The data will be presented in following order:
- Leadership Style Score, where we describe how well the leader acted according to the implemented leadership style.
- Experiential Data, where we describe what we observed during the experiment.
- Statistical Data, where we present the result of the participants’ answers to the questionnaires.

4.2.2 Participative Leadership Team
The Participative leadership team was the first team to undergo the experiment. The data of this experiment team is presented next.

Leadership Score
The leadership implementation was observed with the help of a structured observation sheet. The purpose of the observation was to see how well the team leader followed the characteristics of the intended leadership style and to what degree the characteristics of the other leadership styles were implemented. The leadership scores presented below were reached by counting the mean values of the two observations. The following table presents the score on the different leadership styles for the Participative Leader. All numbers in percentage.

Table 4.2 Participative Leadership Scores
<table>
<thead>
<tr>
<th>Directive</th>
<th>Participative</th>
<th>Integration Oriented</th>
<th>Achievement Oriented</th>
<th>Supportive</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.5</td>
<td>87.5</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
</tr>
</tbody>
</table>

In the table, we can see that the experiment leader implemented the Participative leadership style, according to the purpose. She was clearly consulting with the team members, including the members’ ideas in decision making. She clarified the needs of the team and highlighted the reward for the best performing team.

**Experiential Data**

The Participative leader started the session by explaining the assignment to the team. She then asked the team members to explain how it is to study in their respective countries. They described the demands set by the teachers and how their ways of studying differ from the way they need to study in Sweden. They also described a little bit about their cultures, even though not a lot of time was dedicated to this. This introduction was necessary in order for the team members to get an overall picture of how the rest of the members were, and to feel somewhat comfortable with each other.

After this introduction, the Participative Leader started to ask the participants what they believed was necessary to include in the program that they were to design. She wanted to hear everybody’s opinions and took all of their suggestions into account. The Participative Leader involved each team member and also the leader participated very much in the discussion. She was the central figure of the team and the team was discussing with her, rather than with each other. The members discussed amongst each other to a certain extent, but they did not seem very motivated and did not come up with many ideas. The Participative Leader was leading the discussions and tried to engage all the team members. After a while, the team was asked to start writing the assignment, but nobody in the team seemed very motivated to do so. Instead, the discussions concerning what to include in the assignment went on. When it was time for a short break, the team had come up with some interesting ideas that they were going to continue to develop after the ten-minute break.
After the break, the Participative Leader explained more thoroughly what was expected of the team, as well as informing the members that the team with the best performance was going to be rewarded. This seemed to motivate the team members to engage themselves more. When the Participative Leader asked the team again whether there was someone who wanted to start typing the assignment, one team member volunteered to write the first part of the assignment. While she was typing, the rest of the team continued with discussing the second part of the assignment, the advertisement. However, after a short while, their concentration was back on the previous part, the discussion of the Swedish economic labour market. The Participative Leader encouraged this discussion anyway, in case they would come up with something new to include in the first part of the assignment. The discussion was not very energetic, but the Participative Leader still tried to take each member’s ideas into account and to develop them further.

The Participative Leader then asked the team why the introduction of a new program at the Department of Business Studies, especially designed for international students with the intention to work in the Swedish labour market, would be an interesting project for Kristianstad University. The team came up with different ideas, however, they did not make any notes. The Participative Leader took all the notes, and then gave it to the team members to think about and to do changes if necessary. The team came up with a name for the new program.

Many times when the participants did not come up with any ideas, the Participative Leader had to make decisions without consulting with the team, in order to make the teamwork progress. When the member writing the first part of the assignment on the computer was done, the Participative Leader read it through and also wrote the name of the program. The fact that the Participative Leader left the team for a while forced them to discuss and co-operate more. They started to discuss the advertisement a little bit and
also reflected over what they had done so far. After this, the team was given a five-minute break.

After the break, the Participative Leader informed the team that they had only 25 minutes left to complete the assignment. Another team member did the second part of the assignment, the advertisement. The rest of the team and the Participative Leader kept on discussing general issues concerning the subject. However, the team did not seem to have more ideas, and the members were rather quiet. When the advertisement was done, the whole team went over to the computer to discuss the result and suggest possible changes. The time was running out, and this time restriction made the team more effective. They were all discussing by the computer and made changes until the last minute.

When the experiment was over, the team members asked questions about the experiments and the dissertation, and seemed to be interested in the project.

Statistical Data

The statistical data was collected through a questionnaire, which all participants filled out after the experiment. Since our sample was so small, we could not use this data to make a statistical analysis. Instead, we used this data to support the descriptive analysis. The statistical data will be presented in the following order:

- Vision Score
- Participant Safety Score
- Climate for Excellence Score
- Support for Innovation Score
- Mean Value of Team Performance Rating

Below, these statistics are presented.

<table>
<thead>
<tr>
<th>Vision</th>
<th>Participative Safety</th>
<th>Climate for Excellence</th>
<th>Support for Innovation</th>
<th>Team Performance</th>
</tr>
</thead>
</table>

Table 4.3 Statistic Data for the Participative Team Performance
The Vision score was based on the team’s answers to the two first questions. The team received 34 points out of 40, the maximum result of these questions. The score above is the team’s result presented in percentage. Questions three to six dealt with Participative Safety. The team received 65 out of 80. In questions seven to nine, which concerned the Climate for Excellence, the team received 50 points out of 60. In the last three questions, Support for Innovation, the team received 51 points out of 60.

As seen in the table, the team had the highest score on Vision, as well as on Support for Innovation. The Participative Safety was the lowest score, but the high result of 81.25 implies a generally high team performance result for the Participative leadership team.

The mean value of the team performance was 50, which means that the team is classified as a high performing team. This classification is presented below.

<table>
<thead>
<tr>
<th>Team Performance</th>
<th>Mean Value of Team Performance Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Performance</td>
<td>-39</td>
</tr>
<tr>
<td>Mediocre Performance</td>
<td>40-44</td>
</tr>
<tr>
<td>Moderate Performance</td>
<td>45-49</td>
</tr>
<tr>
<td>High Performance</td>
<td>50-54</td>
</tr>
<tr>
<td>Very High Performance</td>
<td>55-60</td>
</tr>
</tbody>
</table>

4.2.3 Integration Oriented Leadership Team

The second experiment team was led by an Integration Oriented Leader. This was of special interest for us, since this leadership style was created by us and had never been tested before. The data collected during the experiment is presented next.

Leadership Score
The purpose and the way of observing the implemented leadership style, was identical with that of the previous experiment. The same observation sheet was used and the mean values were counted in the same way. The integration Oriented Leader received the following scores, all number in percentage.

Table 4.5 Integration Oriented Leadership Scores

<table>
<thead>
<tr>
<th>Directive</th>
<th>Participative</th>
<th>Integration Oriented</th>
<th>Achievement Oriented</th>
<th>Supportive</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>50</td>
<td>91.7</td>
<td>33</td>
<td>50</td>
</tr>
</tbody>
</table>

According to the scores of the Integration Oriented Leader, the implemented leadership style followed the characteristics of the Integration Oriented leadership style to a high degree. The high scores of the other leadership styles, are consequences of the fact that the Integration Oriented leadership has many characteristics taken from the original four leadership styles. Still, the high score of the Integration Oriented leadership style guarantees that the leadership style implemented in this experiment was the intended one.

**Experiential Data**

The session started with the Integration Oriented Leader asking the team to present themselves and tell each other where they come from. After that, she started to explain what the team was expected to do, starting with the written assignment and ending with the second part of the assignment, the advertisement.

Then, the Integration Oriented Leader invited the team to a cultural discussion where the team members were asked to explain their cultures and discuss the differences between their own and the Swedish culture. All members started to discuss differences and they also started to come up with ideas to include in the assignment. This cultural discussion in the beginning of the experiment made the team members understand the differences in the team and also what to expect from each other. The Integration Oriented Leader did not say very much during this cultural discussion, but let the team members handle this on their own. The discussion was lively. The
team members seemed to enjoy this, and asked each other questions about their respective cultures. While these cultural differences were discussed, the Integration Oriented Leader asked the team whether these differences could help them in the assignment that they were asked to do. So, when they discussed on what the program should include, they took the cultural differences into consideration and thought about what the international students attending this program would need to feel comfortable. The team members interrupted each other, made jokes, agreed and disagreed. The members seemed to feel motivated and really want to do a good job. It was noticeable that the cultural discussion in the beginning of the experiment, made the team members motivated to work together.

When the Integration Oriented Leader asked the team questions, she usually took their skills into consideration. When the question about the labour market came up, she asked the person with the most experience for advice. There were some moments when the discussion died out, but the Integration Oriented Leader only had to ask one question to make the discussion start again.

The team talked about what should be a part of the program and how to do the assignment. Three members discussed together and one of them was taking notes on what to include in the assignment. This member was the secretary of the group and was taking regular notes. One member did not participate in the discussions and was having difficulties due to language barriers.

There was a moment where the team members had forgotten what the assignment should include. Hence, they asked the Integration Oriented Leader to write it down on the board so that they could see it all the time. So far, the team had discussed the content of the program in its entirety, but now they started to make a more exact syllabus. There were many different opinions on what the program should include, which made the discussion more buoyant and lively. The Integration Oriented Leader provided the
team with positive feedback every time they did something creative or came up with good ideas.

It seemed as if the team members developed invisible roles. One person took all the notes and put things together, another person discussed a lot and came up with many interesting ideas and a third person made these ideas more concrete and precise, along with the member taking notes. However, the fourth member did not say very much and had actually not come up with any ideas so far. He only talked in the beginning during the cultural discussion. To make this member more involved in the process, the Integration Oriented Leader gave him a small task to do, in order to make him integrate more with the rest of the team. The team discussed lively and they seemed very creative.

However, during the first break, the member that had not come up with any ideas wanted to leave the experiment. The justification was that he had nothing to contribute with to the teamwork and that he had no knowledge in how to design a whole new program. In this situation the Integration Oriented Leader tried to explain more exactly what was expected and tried to motivate the member by expressing that everybody’s opinion counts and that he probably had many interesting ideas if he would only try to relax. One reason to why he wanted to leave could also have been that his English language skills were not very good and it seemed as if he had misunderstood the given assignment. But when the Integration Oriented Leader and the members together tried to explain what was expected and what the assignment really was about, he decided to stay.

After the break, the discussion started again and the atmosphere in the group felt very positive. The Integration Oriented Leader tried to involve the quiet member more and told him to ask if he did not understand what was going on. When the Integration Oriented Leader had said this, the rest of the team started to ask him questions to make him feel more comfortable. They asked questions about his working experience, which exceeded the others’. This had come up during the cultural discussion in the beginning of the
experiment. They discussed his experiences to make it fit the assignment and in this way his opinions were taken into consideration as well. This made him understand that his opinions also were important for the result of the assignment. This made him more self-confident and he started to come up with more ideas.

When the team was satisfied with the design of the program, they all started the writing process. The Integration Oriented Leader suggested that the only native English speaker should write the assignment. Therefore, this member wrote and the rest of the team dictated what to write. They were all engaged in the discussion and they all came up with ideas on how the design should be presented. After this, there was a five-minute break.

When they came back from the break they continued with the first part of the assignment. Now, only two members wrote and the other two discussed the name of the program and the second part of the assignment. They also discussed their respective countries. When the first part of the assignment was done, all the team members started to make the advertisement. The team had used a lot of time for the first part of the assignment and they did not have much time left for the second part. When there was only ten minutes left, the Integration Oriented Leader suggested that they would start to design the advertisement. They all co-operated and did the layout together. When they were done, they all looked at the result and agreed that they had completed the assignment well and that it did not need any modifications. They would not have had any time for modifications either. After the teamwork was completed, the members talked to each other and seemed positive about the experience and the result.

Statistical Data

The statistical data was collected in the same way as in the previous experiment. The statistics concerning the Integration Oriented leadership team are presented next.
In the Vision section, the team received 32 points of 40. In the questions concerning Participative Safety, the team scored 70 point of 80. The team scored 45 of 60 on the questions concerning climate for excellence. Support for Innovation was given 51 points of 60.

The team scored extremely high on Participative Safety. The Support for Innovation was also very high with 85 percent. The Vision score was moderate with 80 percent, while Climate for Excellence lowered the overall result with its relatively poor score, 75 percent.

The mean value of the team performance was 49.5, resulting in the team being classified as a high performing team.

4.2.4 Directive Leadership Team

The last experiment conducted was the Directive leadership style. The data for this experiment is presented below.

Leadership Score

Also, in this third experiment the same ways of evaluating team leader style was conducted. The leadership scores are presented below, all numbers in percentage.

<table>
<thead>
<tr>
<th>Directive</th>
<th>Participative</th>
<th>Integration Oriented</th>
<th>Achievement Oriented</th>
<th>Supportive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive</td>
<td>Participative</td>
<td>Integration Oriented</td>
<td>Achievement Oriented</td>
<td>Supportive</td>
</tr>
<tr>
<td>75</td>
<td>50</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
</tr>
</tbody>
</table>
In this experiment, the Directive Leader occasionally adapted more characteristics from the Participative leadership style than from the Directive Leader. The implementation of the Directive leadership style improved during the experiment. The high participative score is due to the fact that the leader in the beginning of the experiment acted according to the Participative leadership style. However, most of the time, the leader implemented the intended leadership style, the Directive leadership style.

**Experiential Data**

The session began with the Directive Leader presenting and explaining the task assignment. She asked the members if they had any questions, but nobody seemed unaware of what was expected. After she had explained the assignment, she moved straight to asking them about their ideas of what should be a part of the program. The discussion was not on a very high level, and usually there was almost only one person talking among the members. Also, when the team members made comments, they were always directed to the Directive Leader. The members did not interact with each other, and they did not seem very interested in hearing each other’s opinions. The motivation to perform well seemed quite low. However, all the members were taking notes, but they never knew what the other members were writing about since there was no interaction between them.

During one part of the experiment, the Directive Leader almost took the role of the Participative Leader. This was a result of the non-existing discussion. The leader was forced to be part of the team to make the team work advance. After a while, more participants started to come up with ideas, but the discussion was still on a quite low level.

Even though the team members did not discuss a lot, and they were not motivated, they determined quite fast what the program in its entirety should consist of. After this was done, they started to discuss more in detail how it should be compounded. But still, there was no integration among the participants. All the ideas were directed straight to the Directive Leader. Then, instead of letting the team members direct their ideas towards her all
the time and asking her questions, as they would if she was a Participative Leader, she now started to give them more directions. She asked them more directly what the designed program missed, and what should be done so that the students graduating from this program would be more attractive on the Swedish labour market. After this discussion, the team took a five-minute break.

After the break, the Directive Leader told the team to take ten minutes to individually reflect over what was missing in the designed program, and then after those ten minutes to discuss together about the reflections. However, the team seemed to have a hard time understanding that the leader was giving them directives. They seemed to think that it was only suggestions, and they chose not to follow her suggestions. They kept discussing for a little bit longer, until the Directive Leader told them that it was time to start writing the assignment. One member volunteered to write, and the rest of the team joined him. They discussed together while they were writing and came up with some new ideas. When the team had completed the first part of the assignment, the Directive Leader told them to take a five-minute break.

When the break was over, the Directive Leader gave the team five minutes to individually design an advertisement. The team members did so, and after those five minutes they all presented their ideas to each other and the Directive Leader. The Directive Leader told the members what she thought about the advertisements and asked them to put these advertisement ideas together. The Directive Leader was absent while the team was doing this. When the team was done, the Directive Leader looked over the whole assignment and accepted the result.

After the completion of the experiment, the team members left quite quickly, without much personal interaction.

Statistical Data

As in the previous two experiments, the statistical data was collected through a questionnaire. The data is presented below.
Table 4.8 Statistic Data for the Directive Team Performance

<table>
<thead>
<tr>
<th>Vision</th>
<th>Participative Safety</th>
<th>Climate for Excellence</th>
<th>Support for Innovation</th>
<th>Team Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 %</td>
<td>82.5 %</td>
<td>68.3 %</td>
<td>80 %</td>
<td>44.8</td>
</tr>
</tbody>
</table>

In the Vision section, the team received 24 points of 40. The Participative Safety result was 66 points of 80. In the questions concerning Climate for Excellence, the team scored 41 points of 60. In the Support for Innovation section, the team received 48 points of 60.

The highest score was on Participative Safety with 82.5 percent, closely followed by Support for Innovation, with 80 percent. The score of Climate for Excellence was relatively poor with 68.3 percent, but the lowest score the team had, was on Vision with its 60 percent. The mean value of the team performance, 44,7, classifies the team performance as moderate.

4.2.5 Summary of the Presented Data

We started by presenting the experiment data from the Participative leadership team, continuing with the Integration Oriented leadership team and finishing with the Directive leadership team. The collected data was divided into three categories, namely leadership score, experiential data and finally, statistical data. The data from all the experiments were all presented following this structure.

Leadership Style Scores

The Participative Leader followed the characteristics of the intended leadership style to 87.5 percent, which is a good result and implies that the performed leadership style also was the intended. The Integration Oriented Leader had the highest score with 91.7 percent. Therefore, the experiment with this leadership style, which was tested for the first time, succeeded as well. The last leadership style, the Directive leadership style, got the score
75 percent. This was the lowest score of the three tested leadership styles, but still on a relatively high level, and assures that the right leadership style was followed.

**Experiential Data**

The three experiments differed greatly from each other. The observations from the Participative leadership team experiment showed that this leadership style conveyed a relatively low level of discussion. Further, it could be seen that it did not seem to motivate the participants or bring forth any noticeable creativity. Still, the team was effective, all the participants were involved and the team did not lose concentration during the experiment. The only motivating effect was received when the leader mentioned the reward.

The Integration Oriented leadership style seemed to convey very high team cohesion quite fast. The team discussed much and shared humour. The effectiveness was high and the team came up with many creative ideas. However, not all participants were included, which led to a moment of discomfort.

The Directive leadership team was the least motivated among the three, as well as discussing the least. The team seemed to lack cohesion and motivation to a great extent. The team seemed to have a hard time being creative and developing their ideas further. Still, the team managed to perform the assignment according to the guiding principles.

**Statistical Data**

The statistical data is summarized in the following table, all numbers presented in percentage.

*Table 4.9 Summary of Statistical Data*
We can see that the Participative leadership team scored the highest on Vision and Climate for Excellence, while the Integration Oriented leadership team scored highest on Participative Safety. On Support for Innovation, the highest score was shared by the Participative and Integration Oriented leadership teams. The Directive leadership team, however, did not have the highest score on any of the four TCI factors. Generally, the scores of the Participative and Integration Oriented leadership teams were higher than the Directive leadership team.

Both the Participative leadership team and the Integration Oriented leadership team were classified as high performing teams. The team performance of the Directive leadership team on the other hand, was noticeably lower and was classified as moderate, according to our classification system.

In this section, the experiment data was presented. The experiment analysis will be based on the experiential and statistical data.

### 4.3 Experiment Analysis

#### 4.3.1 Introduction

In this section, we present the analysis of the experiment. The analysis is descriptive, since the small sample size did not allow us to analyse the

<table>
<thead>
<tr>
<th>Leadership Styles</th>
<th>Participative Leadership Team</th>
<th>Integration Oriented Leadership Team</th>
<th>Directive Leadership Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>85</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Participative Safety</td>
<td>81.25</td>
<td>87.5</td>
<td>82.5</td>
</tr>
<tr>
<td>Climate for Excellence</td>
<td>83.33</td>
<td>75</td>
<td>68.3</td>
</tr>
<tr>
<td>Support for Innovation</td>
<td>85</td>
<td>85</td>
<td>80</td>
</tr>
</tbody>
</table>
results statistically. In most cases, experiments are used for quantitative research, but in this study the experiment data had to be used to form a descriptive analysis (Christiansen, 2004). However, we will present the result of a statistical test of the researched causality.

The descriptive analysis will be conducted by Explanation building, which is a deductive analytical procedure. The deductive approach had to be adapted since the purpose of the analysis was to test a theoretical proposition. In this study, the theoretical proposition refers to the suggested leadership style for cross-cultural teams, the Integration Oriented Leader. The experiment data was collected in order to compare the findings with the suggested theory. The analysis was conducted to find a satisfactory explanation to the cause-effects and in this way find out the correctness of the suggested universally applicable leadership style for cross-cultural teams (Saunders, 2003).

4.3.2 Descriptive Analysis

The statistical data implies that the Integration Oriented Leader and the Participative Leader are equally applicable in cross-cultural teams. However, the observed results indicate that there was a significant difference in the team work processes between these two teams. Since the leadership scores are high in both of these experiments, we can assume that the experiments correctly simulated impact of these two different leadership styles. It is our aim to analyse the experiment results to determine which one of these two leadership styles would actually convey better performance in real life situations. We have decided to focus on the Integration Oriented leadership style and the Participative leadership style, since these two have shown significantly better results than the Directive leadership style. Therefore, we can assume that the Directive leadership style is not the most suitable leadership style for a cross-cultural team.
In order to compare the experiment results concerning the team performance, we concentrated on investigating the extent to which the characteristics of the team leader conveyed the factors of Innovative Teams.

4.3.2.1 Vision
As seen in the diagram, the team Vision seemed to be clear among the participants in both teams. The Participative leadership team had the highest score of the three teams on the vision factor. This factor means that the team has a clear idea about its ultimate purpose, and apart from having a clear vision with the assignment, this vision was shared and openly discussed by the whole team.

There are a few characteristics in the Participative leadership style, which can explain why the members had a clear vision with the assignment. Since one of the main behaviour guidelines for the Participative Leader is to clarify the purpose of the team, it is logical that the members received this message from the leader’s way of acting. Moreover, the Participative Leader consults with the team members, which clearly means that her interest is to include the team and take each member’s advice into account in decision making. Therefore, the team under this leadership style could form a common mission, which everyone had created together. The cross-cultural diversity did not complicate this process since the Participative leadership style does not highlight the importance of integration within the team.
Therefore, the process of vision building went exactly as it would have in a uni-cultural team.

On the other hand, the Integration Oriented Leader, who always acts in order to increase the integration, also received a good result. Even though the statistical result was not as high as the Participative leadership team’s, the observed result showed that this team had a real idea of their purpose. There was a significant difference between the processes since the Integration Oriented leadership team did not avoid dealing with the cultural differences. The experiential data showed that the Integration Oriented leadership team was much better in this process. However, the statistical data showed the contrary, even though in a minor scale. This can be explained by investigating how the leader deals with the cross-cultural diversity issues. In the Participative leadership team, these differences are ignored and problems that would have been caused due to these cultural differences were in this way avoided. The Integration Oriented Leader received almost as high a result, even though the team was exposed to problems due to cultural diversity. Therefore, we assume that the Integration Oriented leadership style functions better than the Participative leadership style when concerning the vision factor in a cross-cultural team.

4.3.2.2 Participative Safety
The second factor in innovative teams, Participative Safety, refers to the atmosphere within the team. High participative safety means that the team members feel secure to contribute with ideas that challenge the existing practices and feel included in the information sharing and decision making processes. The experiential data clearly implies that the Integration Oriented team had the best atmosphere of trust within the team. Also, the statistical data agrees with the observed result.
Even though the statistical differences between the teams are not as evident, the observation clearly showed that the atmosphere in the Integration Oriented leadership team was far more positive and more welcoming of a diversity of ideas. The behavioural principles of the Integration Oriented Leader, which promote participative safety, are to include all the team members and distribute power according to the members' skills and capabilities. The Integration Oriented Leader also provides positive feedback whenever possible.

These characteristics of the Integration Oriented Leader are adapted from the Participative leadership style. Therefore, it is quite logical that both of these two teams scored on such a high level on the Participative Safety factor. Not very surprisingly, the Directive leadership style also contributed to quite high Participative Safety. This is due to the fact that the Directive leadership style aims at increasing the sense of security amongst the team members. Still, this style did not function nearly as well as the Integration Oriented leadership style, when taking both the experiential and statistical data into account. The interesting fact is that the Integration Oriented Leader scored quite much higher than the Participative leadership style. This is peculiar since the Participative leadership style shares so many characteristics with the Integration Oriented leadership style, which contribute to participative safety.
This can only be explained by the situational difference between unicultural and cross-cultural teams. The cultural diversity has been the crucial factor, which differentiated the results from each other with the 6.25 percent units. It can be assumed that the cultural discussion that the Integration Oriented Leader invited the team to in the beginning of the teamwork made the positive difference. In this way, we conclude that the Integration Oriented leadership style conveys the highest participative safety in cross-cultural teams.

4.3.2.3 Climate for Excellence
The third factor in innovative teams is Climate for Excellence. This factor stands for a general focus on high performance amongst the team members. It also involves the team’s ability to be open to opposing ideas.

*Diagram 4.3 Climate for Excellence Scores*

As seen in the diagram, the Participative leadership team scored noticeably higher than both the Integration Oriented leadership team and the Directive leadership team. The Participative leadership style conveys high climate for excellence by increasing the motivation to perform. This is done through the Participative leadership style principles to consult with all team members, take their advice into account in decision making and by highlighting the rewards as a result of high performance. As observers, we noticed how mentioning the reward motivated the Participative leadership team to perform better. The same kind of effect was not present in any other team.
The high level of motivation logically conveyed a strong commitment for high team performance and this was also observed during the experiment.

The Integration Oriented Leader achieved a moderate score on this factor. This might be due to the different priorities between these two leadership styles. When the Participative Leader prioritises the excellence in team performance, the Integration Oriented Leader focuses on team cohesion. However, the Integration Oriented leadership team did receive quite high results on climate for excellence since the atmosphere of trust and cohesion allows opposing ideas to be welcomed even though the team might not be as concentrated on high performance as the Participative leadership team. The Directive leadership style does not have any characteristics that contribute to high climate for excellence. The priority of a Directive Leader is to guide the team to complete the task without a major concern for performance.

As a conclusion, it should be noted that even though the issue of cross-cultural diversity is not considered in the Participative leadership style, it did not seem to be an issue in the climate for excellence factor. This leadership style seems to contribute to the highest climate for excellence in cross-cultural teams.

4.3.2.4 Support for Innovation

The last factor in innovative teams, Support for Innovation, refers to the extent to which new ideas and innovations receive support and help from the other team members and the leader. This is highly important when dealing with cross-cultural teams, since their new innovation ability is the main reason why cross-cultural teams are used. If the leadership style in a cross-cultural team does not support innovation, it prevents the cross-cultural team to develop synergy, which is the desired outcome of cross-cultural teamwork. Therefore, this factor has to be prioritised when concerning cross-cultural teams.
The statistical data implies that there is no difference between the Participative and Integration Oriented leadership styles when supporting innovation. However, the observed result showed a significant difference between the two teams. While the Participative Leader is very supportive and offers practical help to develop new ideas, the Integration Oriented Leader guides the team to operate on its own, only helping them to agree if necessary. This is the main difference between these two leadership styles. The Participative Leader is the central figure in the team who sometimes comes up with suggestions and ideas, consults with the team members and supports new ideas. On the other hand, the Integration Oriented Leader wants the team to be the central figure and wants the members to consult with each other, create all the ideas and support each other’s opinions.

The main observed difference between these two teams was that the Integration Oriented leadership team had a great number of ideas to discuss, while the Participative leadership team lacked this ability to create ideas and develop them together. It can be assumed that this is a result of the higher cohesion among the Integration Oriented team members, which conveyed high synergy. As mentioned earlier in the analysis, the Participative leadership style is effective in avoiding the problems due to cultural diversity. At the same time it prevents the cross-cultural integration, which would lead to higher potential productivity. The Integration Oriented
leadership style, on the other hand, focuses on bringing forth this increased productivity by recognising the differences and exploiting them.

4.3.2.5 Conclusion of the Descriptive Analysis
To conclude the result, we have realised that in the Vision, Participative Safety and Support for Innovation factors, the Integration Oriented leadership style provides the best circumstances for a cross-cultural team to perform in. The Climate for Excellence is best provided by the Participative leadership style. We also noted that the Support for Innovation is the most important of these team performance factors when it comes to cross-cultural teams since this factor secures cross-cultural synergy to occur. Therefore, our conclusion of the experiment is that the Integration Oriented leadership style was the most suitable when implementing cross-cultural teamwork.

4.3.3 Statistical Test of Causality
The scientific hypothesis was that team performance is affected by leadership style. The statistical result was studied in order to determine the existence of this relationship. In order to determine whether there is causality between leadership style and team performance in cross-cultural teams, the null hypothesis, that there is no relationship among these variables, had to be proven incorrect.

Even though the small sample size of the experiment research did not allow us to analyse the result statistically, we made a statistical test to investigate this hypothetic causality between leadership style and cross-cultural team performance. The causality was tested with a Kruskal-Wallis test, which is a non-parametric test, and suitable even when the distribution is lower than 30, as was the case in this experiment (Brace et al., 2000). Next, the test statistics are presented.

Table 4.10 Kruskal-Wallis test
As seen in the table, it cannot be statistically proved that the leadership style has a significant effect on the cross-cultural team performance. This result of course is disappointing since the purpose was to prove the existence of this causality.

The inferential statistical tests are used because of the need to determine the probability that the conclusion based on collected data has validity. The problem with these tests is that the detection of the investigated causality might depend purely on chance. The representativity of the sample we have recruited might be representative or not, the causality cannot be proven even though the causality very well may exist. Having such a small sample size, it would be unwise to rely too much on the result of the inferential statistical tests. Instead we will present a statistical test, Crosstabulation, which concerning this experiment can describe the causality better.

Table 4.11 Crosstabulation

<table>
<thead>
<tr>
<th>Leadership Team Performance</th>
<th>Participative Leader</th>
<th>Integration Oriented Leader</th>
<th>Directive Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Performance</td>
<td>25 %</td>
<td>25 %</td>
<td></td>
</tr>
<tr>
<td>Mediocre Performance</td>
<td>25 %</td>
<td>25 %</td>
<td></td>
</tr>
<tr>
<td>Moderate Performance</td>
<td>25 %</td>
<td>25 %</td>
<td></td>
</tr>
<tr>
<td>High Performance</td>
<td>25 %</td>
<td>25 %</td>
<td>50 %</td>
</tr>
<tr>
<td>Very High Performance</td>
<td>25 %</td>
<td>25 %</td>
<td></td>
</tr>
</tbody>
</table>

In the table, it is seen that the team performance result of the three experimented teams differ, even though this relationship does not reach the level of statistical significance. The table shows the responses of the experiment participants concerning the overall team performance. The
Participative leadership style received the best evaluation when measured in this way. The Integration Oriented leadership style was evaluated as the second best leadership style while the Directive leadership style did not receive as high an evaluation. When the mean values of the teams were investigated, both the Participative and Integration Oriented leadership teams could be classified as high performing teams. The Directive leadership team was performing moderately.

4.3.4 Summary

In this section, the descriptive analysis of the experiment was presented. The analysis was conducted as an explanation building, which is a deductive analysing technique. The analysis was presented in four parts. First, the Vision factor was discussed, continuing with Participative Safety and Climate for Excellence and finishing with Support for Innovation. The leadership style, which seems to have contributed the most to these team performance factors, was the Integration Oriented leadership style since it offered the best conditions for Vision, Participative Safety and Support for Innovation. The Participative leadership style seems to be the most beneficial to create a Climate for Excellence in a cross-cultural team. We also concluded that Support for Innovation is the most important factor when cross-cultural team performance is concerned.

The scientific hypothesis was tested statistically by a non-parametric Kruskal-Wallis test. However, the causality between cross-cultural team performance and leadership style could not be proved.

4.4 Experiment Conclusion

In this section, we will discuss the validity, reliability and generalisability of the experiment. We conclude with a summary of the experiment.
4.4.1 Validity

Validity refers to the extent to which the research result actually corresponds with the reality. There are many different aspects of validity, which influence the validity of the experiment in general (Christiansen, 2004). The validity of the independent variable, leadership style, and the dependent variable, team performance, were discussed earlier. The validity of leadership style is high due to the fact that the implemented manipulations were controlled by structured observations. In the experiment, all the three implemented leadership styles had high validity according to the measuring technique. The team performance measurement, the Team Climate Inventory technique, possesses a high validity and therefore, the validity of the dependent variable can be considered as high (Hayes, 2002). The validity of the data collection process that was used, the participant observation, possesses a high ecological validity (Saunders, 2003).

The threat to validity in our experiment, which can be a matter of concern, is that the experiment setting could have been influencing the result of the experiment. The participants might not have answered truthfully, misleading the statistical data. Apart from participant errors, the experiential data could also have been misleading. We, as observers, might have understood the events incorrectly and possibly let our own expectations influence the perception. In order to control the experimenter effects, multiple observations were produced (Christiansen, 2004).

4.4.2 Reliability

“Reliability refers to consistency, stability, or the repeatability of results” (Christiansen, 2004, 182). As mentioned earlier, the independent variable, leadership style, possesses relatively high reliability, concerning the two original Path-Goal Theory leadership styles. We have provided solid guidelines in order to secure the repeatability of the Integration Oriented leadership style. The reliability of the dependent variable is not existing, since each test was only performed once (Saunders et. al., 2003). Due to the
limited resources, we have not been able to test the leadership styles more than once. Unfortunately, this makes the reliability of the test result quite low.

4.4.3 Generalisability
Generalisability refers to the extent to which the research result can be generalised to a larger population. In order to be able to generalise a research, the sample has to represent the whole study population. We used a purposive sampling, which possibly in particular circumstances can possess a relatively high representativity (Saunders et. al., 2003). The question is whether the recruited participants represent the entire workforce exposed to cross-cultural diversity. Since we cannot assume the sample of twelve to represent this population, the generalisability of the experiment does not meet the standards of generalisation.

4.4.4 Summary of the Experiment
The scientific hypothesis of the experiment was that cross-cultural team performance is affected by leadership style and that the Integration Oriented leadership style conveys the best performance. Apart from the Integration Oriented leadership style, the Participative and Directive leadership styles were also tested on cross-cultural experiment teams.

The data was collected through a participant questionnaire and participant observations, which measured the team performance. The structured observation was used to control the event manipulation of leadership style. The collected data was analysed through an explanation building approach. A non-parametric statistical test was conducted as well. The result implied that the Integration Oriented Leader is the most suitable to implement in a cross-cultural team setting. Nevertheless, the statistical testing could not prove that there is a relationship between cross-cultural team performance and leadership style. However, the descriptive analysis clearly proved this causality.
The experiment possesses relatively high validity due to the choice of measurement technique and a frequent use of several control techniques. The reliability of the test result is impossible to determine since the tests were conducted only once for each leadership style. Neither can the test result be generalised since the used sampling was a non-probability sampling and the sample size was small.

Chapter 5
Conclusions

The Conclusions are presented. First, we summarize the dissertation. Further, we suggest modifications to the created leadership style, revise the
5.1 Summary of Dissertation

Along with the globalisation, companies today employ a more culturally diverse workforce than ever before. At the same time, team-based structures as an organisational form have emerged widely (Johnson & Scholes, 2002). As a result, cross-cultural teams are becoming an asset more frequently used in modern companies. These teams are implemented due to the cross-cultural synergy, which conveys higher potential productivity than unicultural teams (Adler, 2002).

Cross-cultural teams are work teams constituted of different nationalities and therefore possess a high level of cultural diversity. The cultural diversity has a large impact on cross-cultural teams and can affect the teams’ performances greatly. According to Kovach (1977), cross-cultural teams usually perform either above or below the average level of effectiveness. This highlighted the importance of leadership in cross-cultural teams (Kovach, 1977, cited by Adler, 2002).

The importance of the right kind of leadership style in cross-cultural teams was discovered by Kokt (2003). Her research on cross-cultural teams showed the causality between leadership style and cross-cultural team performance. This research did not aim to capture the characteristics of the right leadership style in cross-cultural teams, it simply highlighted the need for a universal leadership style.

Among the existing leadership styles, the most cross-culturally valid theory is House and Mitchell’s Path-Goal Theory of Leadership, developed in 1974. The Path-Goal leadership styles have been empirically tested in cross-cultural settings before and proved to be moderately applicable across cultures (Punnett & Shenkar, 1996).
The Path-Goal Theory of leadership considers four different situational factors, which determine the appropriate leadership style to implement. The purpose of these leadership styles is to convey high team performance and individual work satisfaction (House & Mitchell, 1974, cited by Yukl, 2002). However, despite its cross-cultural applicability, the Path-Goal Theory does not consider cultural diversity (Punnet & Shenkar, 1996).

Therefore, there is a need for a universally applicable leadership style for cross-cultural teams, which would bring forth high team performance. Since none of the existing leadership styles has taken the cultural diversity into consideration, a new leadership style had to be created.

In order to create this new leadership style, we modified the Path-Goal Theory by developing a fifth situational factor, which considers the situation of a cross-cultural team. The new leadership style, Integration Oriented Leader, was founded on prior research on problem areas within cross-cultural teams. This was done in order to choose the appropriate leadership priorities. The priorities of the Integration Oriented leadership style were set to increase cross-cultural cohesion and motivation.

In order to test whether the new leadership style actually brings forth higher team performance in cross-cultural teams than the original leadership styles, an experimental study was conducted. Apart from the new leadership style, the Participative and the Directive leadership styles were tested. Three identical cross-cultural experiment teams were formed to test the impact of leadership style on cross-cultural team performance. A purposive sampling was conducted to recruit experiment participants. The laboratory experiment was designed to measure which leadership style contributed the most to high team performance. The team performance was measured through a participant questionnaire and participant observations. The implementations of the different leadership styles were controlled by structured observation (Christiansen, 2004).
The experiment data could only be analysed descriptively, due to the small sample size and the non-probability sampling. The descriptive analysis was analysed through explanation building. A non-parametric statistical test was conducted as well (Saunders et. al., 2003).

The result of the experiment implied that the Integration Oriented leadership style is the most suitable to implement in a cross-cultural team setting. This leadership style contributed to the best team performance in three of the four factors in innovative teams, investigated by the TCI technique (Hayes, 2002).

The experiment possesses a relatively high validity, due to the choice of measurement technique and the frequent use of several control techniques. Unfortunately, the reliability was low, due to the single testing of each leadership style. Neither can the test result be generalised to the universal population (Saunders et. al., 2003).

5.2 Modifications to the created model
We created the Integration Oriented leadership style as a modification to the original Path-Goal Theory. The intention was to develop a universal leadership style, suitable for a cross-cultural team, which would bring forth high performance. The situational factor therefore, was referred to as the Cross-Cultural Team Situation. In order to create an appropriate cross-cultural leadership style, the problems of a cross-cultural team leader had to be taken into consideration. The problems, which we based the Integration Oriented leadership style on, were the problems we focused on in the cross-cultural team research. Since the created leadership style has to be understandable, not all the problems affecting cross-cultural team performance could have been included. In a research as this, also time sets a limit, which prevents a more thorough investigation.

However, the research result showed that the Integration Oriented leadership style was successful in such a cross-cultural team setting as was
experimented. When the performance of the experiment teams was measured in terms of the TCI technique, which considers Four Factors in Innovative Teams, the Integration Oriented Leader received the best result in three of the four factors. The Integration Oriented leadership style provides best circumstances for Participative Safety, Vision and Support for Innovation. However, the Participative leadership style contributed to the best Climate for Excellence.

Therefore, the Integration Oriented leadership style should be modified in order to reach a better Climate for Excellence. However, when modifying the Integration Oriented leadership style, it has to be secured that it will not lose any of its advantages in the process of modification.

According to the research analysis, the Participative leadership style was shown to generate a high Climate for Excellence through motivating the participants by highlighting the rewards for team performance and clarifying the need of the team. This is not done by the Integration Oriented Leader, but should also be taken into consideration. The high priority of team cohesion in the Integration Oriented leadership style could be extended with more focus on team performance.

Therefore, the Integration Oriented leadership style can be improved by choosing the priority depending on the team development stage. In the beginning of the cross-cultural teamwork, the team cohesion should be the main priority. However, when the team has reached a desired level of cohesion, the Integration Oriented Leader should prioritise the team performance. This could be done in the same way as the Participative leadership style suggests, by highlighting the rewards for team performance and clarifying the needs of the team. In this way, we assume that the modification would not endanger the advantages of the Integration Oriented leadership style.

To conclude this section, the original and extended principles and guidelines for the Integration Oriented leadership style are presented.
The Integration Oriented Leader:

- Possesses a cross-cultural mindset.
- Invites the team to a cultural discussion in the beginning of the teamwork.
- Is clear in communicating what is expected and how to achieve the task goal.
- Distributes power according to team members’ skills and capabilities.
- Includes all team members.
- Provides positive feedback.
- Helps the team to agree on task goal.
- Clarifies the needs of the team.
- Highlights the reward for the team performance.

5.3 Methodological Improvements

Our research was conducted with an experimental study. In order to develop and test the new leadership style, this research strategy was the most appropriate for us to use. Certainly, we could have researched the applicability of the created model with other research techniques. However, we believe that none of them would have given us a more correct picture of the reality. While observing the experiment, we got an opportunity to see how the teams were really affected by the intended leadership styles, and to evaluate its effect on team performance.
However, there is a possibility that we as observers let our hopes and expectations influence the result of the research. It would have improved the credibility to have an impartial observer in the experiments. If the observations of the impartial observer had shown to be significantly different, it would have implied that we were led by our academic ambitions while observing.

However, the most significant shortcoming of the experiment was the fact that we were not able to test each of the leadership styles repeatedly. Since there was such a low number of participants, especially the statistical data of the experiment might have been misled. The effect of the individual differences would have been reduced by a larger sample.

The individual differences should have been investigated more thoroughly before the sampling. Especially the English language skills should have been surveyed more deeply. The unequal knowledge in English affected the ability of some participants to be included, and may have caused differences in team performance, which were not results of leadership style.

5.4 Suggestions for Further Research
Since the created leadership style, the Integration Oriented Leader, gained support in this experiment, we have reasons to assume that the model would be applicable in a cross-cultural team context. Therefore, we believe that the Integration Oriented leadership style is worth further examination.

In order to determine the applicability of the Integration Oriented leadership style, the further research should concern these issues:

The same structure of our experiment should be repeated in a large scale, in order to determine the applicability of the Integration Oriented leadership style.
There should be a higher number of experiment teams, in order to test the Integration Oriented leadership style repeatedly. The number of participants should be at least 30, in order for a statistical analysis to be orderly conducted. If the research analysis would be based on participant observations, impartial observers should be included in the research.

5.5 Practical Implications

The new, created leadership style is most important for leaders who face the challenges of cross-cultural team leadership. It can be used as a behavioural guidance for leaders who want to reach better performance and overcome the barriers due to cultural diversity in cross-cultural teams. It can also be beneficial to international companies and their managers as a tool to use when training leaders for cross-cultural team assignments.

We hope that the Integration Oriented leadership style will be beneficial for future leaders put in a position where cultures are interacting, and a need for integration is created.

References

Books:


Articles:


**Internet:**


