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**THE IMPACT OF WORK GROUP DIVERSITY ON ORGANIZATIONAL
OUTCOMES**

By

LISA NANCARROW, B. Comm. (Honours)

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of

Master of Business Administration

Eric Sprott School of Business
Carleton University
Ottawa, Ontario
December 10, 2001
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The undersigned recommend to
the faculty of graduate studies
acceptance of the thesis:

**THE IMPACT OF WORK GROUP DIVERSITY ON
ORGANIZATIONAL OUTCOMES**

Submitted by:
Lisa Nancarrow, B. Comm. (Hons.)
in partial fulfillment of the requirements for
the degree of Master of Business Administration

A handwritten signature in cursive script, reading "Terence Dyke", is written over a horizontal line.

Thesis Supervisor, School of Business

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ABSTRACT

The purpose of this research was to examine diversity in work groups and to assess its impact on organizational outcomes. A model was developed which examined the relationship between work group diversity, managers' Universal Diverse Orientation, and work group culture, as independent variables and outcomes of task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. This model was evaluated using questionnaire data collected from managers at a financial institution. A new measure of work group culture was developed based upon Thomas and Ely (1996) and Dass and Parker's (1999) diversity paradigms. It is expected that this measure will add to the diversity literature by helping organizations better understand a work groups' views towards diversity, and will assist in identifying barriers to diversity and inclusivity.

The results of the study often contradicted the hypothesized relationships. A work group culture of learning and effectiveness decreased emotional conflict. Managers' Universal Diverse Orientation increased team orientation and communication. Age diversity decreased emotional conflict, gender diversity increased emotional conflict, employment status diversity increased conflict openness norms, team orientation and communication and ethnic diversity decreased task conflict and creativity. The regression analysis revealed that only two of the dependent variables, emotional conflict and communication were significantly predicted by the independent variables. The results suggest that the effects of diversity may be more complex than originally proposed.

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CHAPTER 1: INTRODUCTION

Gradually, the work force has opened its doors to individuals from a variety of diverse backgrounds. Immigration and a steady increase in the number of women entering the workforce (Miller and Rowney, 1999) has encouraged organizations to examine their human resource policies and practices, to determine if diversity is supported by the organization's culture (Weiner, 1997). The literature on diversity has investigated the role that diversity plays in such dynamics as conflict, communication, creativity, teamwork, turnover, and employee satisfaction (Pelled, 1996; Guzzo and Dickson, 1996; Pincus, 1986; Amabile, 1998). The outcomes have largely been mixed, some studies conclude that diversity can be beneficial to group functioning (Cox et al., 1991) and others have shown that diversity can be destructive (Elsass and Graves, 1997). It appears that different factors such as a work group's culture and managers' views towards diversity all play a crucial role in inclusivity (Barry, 1996; Weiner, 1997) and how diversity will be utilized by the organization (Larkey, 1996).

The purpose of this research was to examine the impact of work force diversity on variables related to organizational outcomes. A model was developed which examined the relationship between work group diversity, managers' Universal Diverse Orientation, and work group culture and outcomes including task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. The model was tested by surveying a financial institution. In addition the research involved the development of a new measure of work group culture based upon Thomas and Ely (1996) and Dass and Parker's (1999) diversity paradigms.

The present research is unique as it examined the joint role of work group diversity, managers' Universal Diverse Orientation (Miville et al., 1999) and work group culture on variables associated with organizational outcomes. Previous research often focused on only one variable at a time (Mamman, 1996; Lau and Murnighan, 1998). Through the present research, insight was gained about work force diversity and its impact on organizational outcomes. This knowledge can help organizations understand the impact of diversity on work group productivity. Finally, it is believed that the measure on work group culture will add to the diversity literature by helping organizations better understand work groups' views towards diversity, which will assist in identifying barriers to diversity and inclusivity.

CHAPTER 2: LITERATURE REVIEW

Over the past decade, the topic of managing diversity has received significant attention in the human resource management literature (Mamman, 1996). Organizations have faced enormous change in the demographic composition of the workforce (Richard and Kirby, 1997) and have slowly acknowledged that employees do not always share the same values and beliefs (Wellner, 2000). Researchers have examined the impact of diversity on organizational outcomes, such as conflict, creativity, teamwork, and communication. Results have been mixed, several studies conclude that diversity has a positive impact on creativity and productivity (Watson et al., 1991; Lau and Murnighan 1998; Pelled et al., 1999). Others have shown that diversity increases turnover and conflict and decreases group productivity (McCain et al., 1983; Williams and O'Reilly, 1998). This has led organizations to wonder whether their goal is to “manage”, “understand”, “affirm”, “support” or simply “survive” diversity (Bond and Pyle, 1998).

The following chapter will be an examination of the existing research on diversity and organizational outcomes. First, some definitions of diversity will be provided, as there are many ways in which diversity can be defined and studied. Second, the importance of diversity will be discussed. Third, diversity and the extent to which it is embraced by employees, management, and the work group culture will be taken into account. Lastly, six organizational outcome variables will be examined: task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. These variables have been chosen as the focus of this study as they have received extensive coverage in the diversity literature (Pelled, 1996; Guzzo and Dickson, 1996; Pincus,

1986; Amabile, 1998).

2.1 What is Diversity?

Work group diversity has broadly been defined, as any attribute that people use to tell themselves that another person is different (Williams and O'Reilly, 1998). Others have defined workforce diversity as “a work force made distinct by the presence of many religions, cultures or skin colours, both sexes (in stereotypical roles), differing sexual orientation, varying styles of behaviour, differing capabilities, and usually unlike backgrounds” (Miller and Rowney, 1999 p. 22). For the purpose of the present research, diversity will be defined as differences (Weiner, 1997) and managing diversity will be defined as learning to work effectively with people who think, speak and act differently than we do. See Appendix 1 for a glossary of terms.

As the Canadian population continues to change so do the dynamics and characteristics of the labour force. Between 1976 and 1994 women aged 25-44 increased their labour force participation from 50 to 70% (Weiner, 1997). In 1996 women comprised 46% of the labour force (HRDC, 1996) and by 2000 were expected to comprise 50% of the labour force (Weiner, 1997). However, it is not just women who are changing the dynamics of the workforce, 13% of Canadians have disabilities and 7% are of working age (Weiner, 1997). By 2006, 5% of the population will be Aboriginal peoples (Weiner, 1997) and 18% of Canadians will be visible minorities (Taylor, 1995). Diversity also includes other dimensions such as differences by age, religion, language, family situation,

sexual orientation and social class. For example, estimates suggest 7% to 10% of the population are gay or lesbians (Weiner, 1997).

As the demographics of the Canadian workforce change so do the dynamics of group relationships (Blau, 1977; Lau and Murnighan, 1998). Work group heterogeneity refers to the degree to which there is dispersion of a particular attribute in a specified population (Blau, 1977). Gender, age, visible minority membership, education, tenure, family status and religion are all elements of diversity, which can change the dynamics of group relationships. For example group dynamics will differ when a group consists of one male and five females compared to a group with three females and three males. As diversity slowly makes its way into organizations, group dynamics begin to change. As a result one of the biggest challenges facing organizations in the 21st century is the management of diverse work groups (Ayoko and Härtel, 2000). Some of the potential advantages of employing a diverse workforce will be discussed next.

2.2 Why is Diversity Important?

In Canada, immigration, globalization, an aging workforce and an increase in the number of women entering the labour force have created work environments with increased diversity (Miller and Rowney, 1999; Williams and O'Reilly, 1998). As a result, employers are afforded the opportunity to recruit employees with a variety of skills and experiences (Schneider and Northcraft, 1999). By employing diverse groups, employers are opening their minds to the talent and skills of all employees rather than restricting recruitment to employees who fit into a pre-defined mould. For example, employees

from diverse backgrounds can teach organizations about business practices and customs from other cultures, and this information can give organizations a competitive advantage (Weiner, 1997) in terms of interpersonal and business relationships.

Gardenswartz and Rowe (1999) conclude that employing a diverse workforce enables organizations to: gain access to a changing marketplace, get a healthy return on investment from human capital, recruit and retain the best talent, expand creativity and ensure survival through resilience and flexibility. Although there may be other advantages of employing a diverse workforce these key factors will be discussed in detail below.

2.2.1 Gain Access to a Changing Marketplace

The Conference Board of Canada ranks customers and markets as the number one rationale for implementing diversity programs (Wheeler, 1995). Diversity programs afford organizations the opportunity to learn about the diverse markets in which they are located. They provide forums for employees to discuss market opportunities and product development and at the same time provide management with information about diverse customers and market bases (Wheeler, 1995). This is beneficial to profit and productivity as consumers demand products that meet their individual, tastes, needs and styles (Wheeler, 1995) and are willing to look for companies that satisfy these demands. Diversity initiatives that welcome employees' ideas and suggestions have enabled Kraft General Food and Pillsbury to introduce new products and penetrate new markets. In the 1980's Reebok increased their earnings from \$12 million a year to \$3 billion a year, due

largely through the sale of aerobic shoes. The product line was suggested by a group of female employees who noticed that there were no good aerobic shoes on the market (Wheeler, 1995).

2.2.2 Getting a Healthy Return on Investment from Human Capital

An organization that embraces diversity can expect to effectively utilize the skills and talents of all employees (Wilson, 1997). If employees feel supported by the organization they will most likely maximize their effort and will put their best foot forward (Wilson, 1997). This will enable organizations to get the most value from their workforce. For example, 3M demonstrates their commitment to diversity through their human resource principles. The principles include: respect the dignity and worth of individuals, encourage the initiative of each employee, challenge individual capabilities and provide equal opportunity (Wheeler, 1995). These principles encourage employees to express themselves fully. As a result 3M utilizes the skills and abilities of all employees.

2.2.3 Recruiting and Retaining the Best Talent

Over the past decade the number of women and minorities entering the workforce has increased (Miller and Rowney, 1999). By embracing diversity employers are afforded the opportunity to recruit employees from a variety of demographic backgrounds and therefore are able to draw from the broadest pool of talent (Weiner, 1997).

If organizations are to recruit and retain diverse employees they need to promote career opportunities within the organization and demonstrate to employees that they are willing

to invest in their future with the company (Gardenswartz and Rowe 1999; Miller and Rowney, 1999). They also need to commit to training the workforce on the value of diversity (Mamman, 1996). For example, an organization that manages diversity well is seen as an employer of choice and is able to recruit a broader range of talent (Wheeler, 1995). The retention of qualified and talented employees will help organizations to avoid the high cost of turnover (Gardenswartz and Rowe, 1999).

2.2.4 Expanding Creativity

Diversity has the potential to increase creativity due to the range of perspectives brought to the work group. This creativity includes innovative ideas about product development, market opportunities and conflict resolution techniques (Amabile, 1996; Thomas and Ely 1996). Research has shown groups containing members with different viewpoints and approaches to a task were more creative than groups whose members shared the same viewpoint (Nemeth, 1986; Lau and Murnighan, 1998).

2.2.5 Ensuring Survival through Resilience and Flexibility

Learning to work effectively in a diverse workplace requires that organizations are open and responsive to new ideas. This flexibility allows the organization to respond more effectively to change and enhances its resiliency (Gardenswartz and Rowe, 1999). Thus effective diversity management enhances organization survival by building flexibility and resiliency.

2.2.6 Fostering the Benefits of Diversity

In conclusion, organizations need to address diversity in order to gain access to a changing marketplace; to get a healthy return on investment from human capital; to recruit and retain the best talent; to expand creativity and to ensure survival through resilience and flexibility. However opening the doors to diversity is not enough, it must also be managed effectively by the organization and its employees. Ultimately diversity must become part of the organization's culture (Weiner, 1997). The acceptance of diversity will be explored further in the next section.

2.3 Diversity and Acceptance

If diversity is to be effectively utilized by organizations, it must be embraced by the organization's culture, management and employees (Larkey, 1996; Weiner, 1997). Organizational culture is defined as the collective norms and traditions shared by employees and managers (Weiner, 1997). It serves as a guideline for the implementation of organizational policies and procedures. The organizational culture works in conjunction with managers who are responsible for executing the organizational strategies. As a result both the organization's culture and the attitudes and views of managers towards diversity will determine where diversity is placed in relation to other organizational practices (Larkey, 1996). The next two sections will explore the role of the employee, the manager and the diversity paradigm in the acceptance and promotion of diversity initiatives.

2.3.1 The Role of the Employee and Manager

The attitudes of employees and managers towards diversity should not be downplayed when attempting to integrate diversity into an organization's structure. Research has shown that the most persistent barriers to the implementation of diversity initiatives are attitudes, values and beliefs (Miller and Rowney, 1999). Management has the power to decide where diversity will be placed in a list of organizational strategies (Barry, 1996). Managers often make decisions consistent with their personal values and experiences and ultimately these experiences and values will be linked to organizational outcomes (Hambrick and Mason, 1984).

However, it is not just management who determine how the organization will embrace diversity, employees also decide how diversity will be utilized. Many employees resent diversity programs (Richard and Kirby, 1997) and view them as giving designated groups an unfair advantage (Dass and Parker, 1996). As a result diversity may be viewed as a threat to the dynamics of the work group. In essence managers and employees play a key role in how differences will be perceived and how well diversity will be incorporated into day to day business activities (Larkey, 1996).

2.3.2 Diversity Paradigms

Thomas and Ely (1996) and Dass and Parker (1999) have identified four diversity paradigms in which work groups operate: resistance, discrimination and fairness, access and legitimacy and learning and effectiveness. Each diversity paradigm builds upon the previous and links diversity to approaches to work (Thomas and Ely, 1996).

Resistance

The overall drive behind the resistance paradigm is avoidance. Organizations refuse to entertain the idea of diversity and as a result, diversity initiatives are brushed aside and ignored. Management claims that business strategies such as global competition (Dass and Parker, 1999) should receive priority over diversity because they have a greater impact on productivity and profits. As a result this “non-issue” view of diversity maintains the status quo by sustaining homogeneity and encouraging employees to think and act alike.

Employment Equity legislation is approached hesitantly. It is viewed as giving some people an unfair advantage (Dass and Parker, 1999). Change is not embraced but is instead viewed as a liability to organizational productivity. Diversity initiatives are often ignored as employing a diverse workforce will change the norms and values of the work group, which ultimately will impact profit and will discourage shareholders. Discussions about diversity are brushed aside and considered irrelevant because diversity is viewed as a threat to the dynamics of the work group.

Discrimination and Fairness

The discrimination and fairness paradigm is the most commonly adopted approach to work place diversity (Thomas and Ely, 1996). This paradigm emphasizes assimilation because differences between people are believed to cause problems. Differences are not acknowledged as this would mean that employees were being viewed through different lenses or perspectives. Instead employees are viewed through the same lens and are

treated in the same manner even when their experiences or needs may be quite different. The advantages of diversity are not explored because the organization is intent on treating all employees in the same manner. As a result the “staff gets diversified but the work does not” (Thomas and Ely, 1996 p. 81).

Management believes that prejudice has kept “protected groups” such as women, minorities and people with disabilities out of organizations (Dass and Parker, 1999) and that legislation will solve their problems. Therefore only the symptoms of diversity are addressed (Dass and Parker, 1999). In essence diversity is viewed as a problem to be solved (Dass and Parker, 1999) with fair treatment and compliance with legal mandates. If the organization meets diversity goals for recruitment and retention they believe that they have attained diversity.

Access and Legitimacy

The access and legitimacy paradigm promotes differentiation. Unlike the discrimination and fairness paradigm where legislation is the guiding force behind diversity, the access and legitimacy paradigm voluntarily adopts diversity practices to meet business needs. Both management and employees accept diversity initiatives because they expect diverse employees to provide knowledge and insight about diverse consumers. As a result differences between employees are acknowledged and are used strategically to gain access to new markets and consumers. A diversity manager is often employed as a representation of the organization’s commitment to diversity.

The access and legitimacy paradigm is also concerned with social recognition. Employees are promoted and placed in positions that are highly visible to the public, for example, a minority employee marketing to a minority customer. The organization believes that customers will be loyal to the company if they see people like themselves. Unfortunately diversity is often restricted to specific organizational practices and is not embraced extensively by the organization's culture. Diversity remains at the surface level and may be ignored when expedient. In essence diversity is utilized to appease the public and at the same time to satisfy organizational pressures for diversity.

Learning and Effectiveness

The learning and effectiveness paradigm is the most desirable approach to work force diversity, but also appears to be the least common (Thomas and Ely, 1996). The goal of the learning and effectiveness paradigm is to connect diversity to approaches to work (Thomas and Ely, 1996), by utilizing the views and perspectives of all employees. Diversity is viewed as a learning opportunity for employees and the organization and is incorporated into day-to-day business practices. Employees are encouraged to ask questions and learn from the perspective and experience of others. As a result differences between people are shared and celebrated and diversity training is viewed as educational rather than directive.

Today most organizations operate somewhere between the discrimination and fairness paradigm and the access and legitimacy paradigm (Dass and Parker, 1999). Dyke (2001) using data from Wilson (1997) and Miller and Rowney (1999) estimates that 70% of

Canadian organizations with diversity programs operate in the discrimination and fairness paradigm, 25% in the access and legitimacy paradigm and only 5% work toward the learning and effectiveness paradigm. As a result most Canadian organizations have yet to recognize the strategic advantages of a diverse workforce. The work group cultures clearly show the role of management in the acceptance and promotion of diversity initiatives. Managers have tremendous power in organizations in deciding which initiatives receive priority and are worthy of their time and commitment. In conclusion it is much more likely that differences will be respected and employees will be valued for their special skills and knowledge when management and the organization share a positive view towards diversity (Larkey, 1996).

2.4 Outcomes

Diversity and work group outcomes have been the focus of many research studies (Pelled, 1996; Shaw and Barrett-Power, 1998). Some studies conclude that diversity can be beneficial to group functioning (Cox et al., 1991) and others have found that diversity can be destructive (Elsass and Graves, 1997). The next section will examine four organizational outcome variables: conflict, communication, teamwork, and creativity that have been extensively reviewed in the diversity literature.

2.4.1 Conflict

Conflict is natural when people work together especially when ideas, values and beliefs clash. Conflict can be viewed as both an asset and a liability to organizational outcomes. It can become a successful ingredient in terms of generating new ideas and solutions (Capozzoli, 1995) while at the same time, it can cause tension among group members, which can be destructive to the functioning of the team. Conflict has been identified as the number one concern of employees in regards to work group diversity (Carrell and Mann, 1995). It is reported more often and with more intensity in culturally diverse work groups as different belief structures and values tend to cause anxiety and tension between group members (Ayoko and Härtel, 2000).

Researchers have identified two types of conflict that exist within work groups, emotional and task conflict. Emotional conflict occurs when individuals place one another into categories based on demographic attributes (Jehn, 1995). Task conflict exists when employees disagree about task elements and procedural methods (Jehn, 1995). Each type of conflict produces differing effects on the cohesion and social interaction between group members as one incorporates job related variables and the other thrives on stereotyping and social comparisons. Ayoko and Härtel (2000) in a study of six culturally diverse workgroups from two large Australian organizations found that emotional conflict is more likely to produce negative reactions that inhibit personal relationships (Ayoko and Härtel, 2000). The same study showed that task conflict can be beneficial to productivity in terms of innovation and creativity (Ayoko and Härtel, 2000) by stimulating thoughts, ideas and discussions between group members.

Taking this one step further, Pelled et al (1999) examined functional background, race, gender, age and tenure and their relationship with task and emotional conflict. Forty-five teams were included in the study. The teams were comprised of, on average, 10 members, with a mean age of 38.5 years and a mean tenure of 10.6 years. The average percentage of women on a team was 25% and the average percentage of non-whites was 19%. Results indicated that different types of diversity had distinctive effects on task and emotional conflict (Pelled et al., 1999). Functional background was shown to stimulate task conflict whereas race, gender, age and tenure had non-significant associations with task conflict. Pelled et al argued that task conflict is more likely to be triggered by functional background than other types of diversity due to its strong correlation with task elements and procedural methods (Pelled et al., 1999). While task conflict was related to just one diversity attribute, emotional conflict was driven by multiple diversity attributes. Race and tenure were positively associated with emotional conflict as they triggered social categorization (Pelled et al., 1999). Age also triggered emotional conflict as employees compared their progress in the organization to others in the same age range. Of particular interest in Pelled et al's findings was the relationship between conflict and task performance. Team performance was not strongly influenced by either emotional or task conflict. Surprisingly functional background was the only diversity attribute that hampered team performance. In conclusion diversity attributes can influence conflict and the relationships between group members.

2.4.2 Teamwork

Teamwork has become a norm in most organizations (Robbins and Langton, 2001). A team is defined as “a diverse group of people who share leadership responsibility for creating a group identity in an interconnected effort to achieve mutually defined goals” (Harper and Rifkind, 1995 p. 65). This definition of a team is comprised of three components: a team must have at least two people, people in a team must have regular interactions and people in a team must share a performance objective (Daft and Fitzgerald, 1992).

A large portion of the diversity literature has focused on team dynamics and relationships (Shaw and Barrett-Power, 1998; Elsass and Graves, 1997; Watson et al., 1996). Researchers have shown that diversity can increase productivity (Wheeler, 1995) because of the different ideas and perspectives brought to the team (Pelled, 1996). Other researchers have shown that diverse decision making groups may fail to reach their potential (Elsass and Graves, 1997) because groups suffer from poorer cohesion (Ayoko and Härtel, 2000).

Watson et al (1993) in a study of 173 upper-level undergraduates (103 men and 70 women) at a large university in the United States examined the productivity of homogeneous and heterogeneous groups. The homogenous groups reported higher levels of process effectiveness than the heterogeneous groups, in the early stages of the group's formation. The heterogeneous groups could not decide which tasks to focus on, and as a result their productivity suffered (Watson et al., 1993). However, once the

heterogeneous groups learned how to function as collective units, the teamwork generated was comparable to that of the homogenous work groups. In addition, the heterogeneous groups had the potential to generate a wider range of perspectives and alternatives to the tasks, because of the different ideas brought to the team (Watson et al., 1993).

What seems to be the key factor in determining whether diversity will enhance productivity or not is ensuring that all team members are respected and valued for the skills that they bring to the team (Wheeler, 1995; Robbins and Langton, 2001). When employees feel comfortable in their work environment it is much more likely that they will perform to the best of their abilities. As Shaw and Barrett-Power (1998, p. 1323) conclude “diversity will determine the overall level of behavioural integration in group activities, behavioural integration in turn influences the ability of the group to develop systems of problem solving, decision making, and implementation.”

In conclusion, teamwork and work relationships play a crucial role in meeting performance objectives (Guzzo and Dickson, 1996; Campion et al., 1993). Of critical importance is the employee’s sense of belonging and commitment to the team. Only when the employee feels valued will the team benefit from the diverse skills and expertise of all those involved (Dose and Klimoski, 1999; Rodwell et al., 1998).

2.4.3 Communication

Employees depend on daily interactions with one another to exchange information and as a result communication is vital to organizational functioning (Weiner, 1997). Communication is defined as a “negotiation and exchange of meaning, in which messages, people-in-cultures and ‘reality’ interact so as to enable meaning to be produced or understanding to occur” (O’Sullivan et al., 1983 p. 42). Communication enables employees to share information, to bounce ideas off each other and ultimately to make decisions based on the information obtained from others (Larkey, 1996).

Communication tends to be more complex in diverse work environments (Weiner, 1997). Context, directness and non-verbal cues all play different roles in how messages are interpreted (Weiner, 1997). For example many Asians are less direct when communicating information to others, compared to North Americans who are very direct and are often considered blunt by other cultures. This can often result in a misunderstanding of the communicated message as critical information is presented in a form that people may not be accustomed to (Weiner, 1997). If the same message is interpreted differently because of the context, directness, or non-verbal cues of the parties involved, working relationships may be strained (Avtgis, 2000).

In order to improve cross-cultural communication employees have to learn to adapt both their listening and communication skills to fit the medium involved. Weiner (1997) suggests that communication should not be rushed, that both parties be sensitive to

humor, idioms and clichés and that if a misunderstanding occurs, the parties identify what went wrong.

In conclusion it appears that work group diversity has the potential to increase communication misunderstandings due to the differing context, directness and non-verbal cues that govern communication styles (Weiner, 1997).

2.4.4 Creativity

Creativity is defined as “the production of novel and useful ideas in any domain” (Amabile et al., 1996 p. 1155). Most studies on creativity and diversity indicate that diversity enhances the creative problem solving process (Wheeler, 1995) due to the variety of ideas generated from diverse employees.

Since diverse groups are expected to have a broader range of knowledge and perspectives it is logically expected that creativity will be enhanced (Wheeler, 1995). Nemeth (1986) conducted a series of experiments that showed that groups containing members with different approaches to a task were more creative. Similarly Gardenswartz and Rowe (2000) conclude that creativity is a positive outcome of heterogeneous work groups. Diverse mixes of employees offer more perspectives, and generate a wider array of ideas and solutions than a more homogeneous staff (Gardenswartz and Rowe, 2000). At the same time research has also shown that creativity can be stifled in diverse work groups when employees are reluctant to incorporate their personal views, experiences and perspectives into work activities (Williams and O'Reilly, 1998).

Ultimately how creativity is utilized by the organization is dependent on the organizations culture and how well the diverse work group is managed (Wheeler, 1995). Research has shown that diversity “in and of itself does not result in better problem solving and more creativity, but managed diversity can” (Wheeler, 1995 p. 17). If employees feel part of a team and at the same time are respected for the ideas and perspectives they bring to the work group, creativity can become a valuable asset in organizational productivity (Amabile, 1995). At the same time if the organization’s culture fosters creativity as an organizational norm, employees will be open to sharing their ideas and thoughts with others (Amabile, 1995). In conclusion, creativity can become a strategic business advantage for organizations if it is embraced by both management and the organization’s culture.

2.5 Summary

It is clear from the literature that, as the Canadian population continues to change, so will the dynamics of organizational work groups. In turn relationships between group members will become more complex as individuals interact with people from a variety of diverse backgrounds. The impact of diversity is not a black and white matter but instead falls into a gray area that is dependent on the work group culture, the heterogeneity of the work group and the attitudes and behaviour of managers and employers towards diversity. If used effectively, diversity is potentially a positive contributor to organizational productivity.

CHAPTER 3: MODEL AND HYPOTHESES

The purpose of this research was to examine the impact of diversity on organizational outcomes. Research has shown that performance is related to conflict, team orientation, communication, and creativity (Pelled, 1996; Guzzo and Dickson, 1996; Pincus, 1986; Amabile, 1998). A model was developed which examined the relationship between work group diversity, managers' Universal Diverse Orientation, and work group culture, and variables related to organizational outcomes. The intent of this chapter is to present the model and the theoretical logic behind each of the individual variables.

Drawing on research of the previous chapter a model was developed which includes 6 dependent variables (see Figure 1). It was proposed that the 3 independent variables, work group diversity, managers' Universal Diverse Orientation, and work group culture would impact variables related to organizational outcomes. In the following discussion each variable will be defined along with the rationale for including it in the study. Hypotheses will be presented which examine how work group diversity, managers' Universal Diverse Orientation, and work group culture can foster work environments with varying degrees of task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. Although they are not modelled below, interrelations may exist between the variables. For example, a work group's culture may be dependent on how much diversity exists within the work group and conflict may influence creativity. However due to the restrictions of the data these interrelationships could not be examined.

Figure I: Simplified Overview of the Impact of Work Group Diversity on Organizational Outcomes

3.1 Independent Variables

Some researchers have argued that when properly used diversity can be beneficial for organizations, known as the value in diversity hypothesis (Cox et al., 1991). Diverse groups often become more effective on the task elements of identifying problem perspectives and generating solutions due to the varied personal and work experiences of those involved (Watson et al., 1991). Others have shown, however, that diversity can be destructive to group functioning (Elsass and Graves, 1997) especially in terms of turnover and conflict (Pelled, 1996).

How can similar studies result in such contradictory findings? What seems to be the overarching theme in explaining the different impact of diversity is the organization's culture, values, attitudes and beliefs (Miller and Rowney, 1999) and how management prioritizes diversity in relation to other organizational activities (Barry, 1996). In essence diversity must be embraced not only by the corporate culture but also by all levels of management and employees (Schneider and Northcraft, 1999) if it is to be a positive force in enhancing performance (Williams and O'Reilly, 1998).

Based on a review of the literature, the variables which seem to be most clearly related to organizational outcomes such as task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity are work group diversity, managers' Universal Diverse Orientation and work group culture. Each of these independent variables will be addressed in turn below.

3.1.1 Work Group Diversity

As diversity increases within the work environment, employees are encouraged to work with people from a variety of backgrounds. Research has shown that diverse groups often experience higher levels of conflict and tension due to the array of ideas, perspectives, values and beliefs brought to the work group (Pelled, 1996; Auerbach and Dolan, 1997). For the purpose of this research diversity was defined as a workplace that reflects differences with respect to age, gender, length of service, employment status, and ethnic background.

As a result of the many diversity attributes that exist in the workplace, multiple variations of group composition exist. This variation can impact work group processes and performances (Pfeffer, 1985). Work group heterogeneity refers to the degree to which there is dispersion of a particular attribute in a specified population (Blau, 1977). Gender, age, visible minority membership, education, tenure, family status and religion are all elements, which can change the dynamics of group relationships. For example, group dynamics will differ when a group consists of one male and five females compared to a group with three females and three males (Lau and Murnighan, 1998). Organizations must be aware that each group will go through its own unique forming, storming, norming and performing stages (Robbins, 1996), dependent not just on the characteristics of the work group but also on the heterogeneity of the work group. As a result it was expected that the heterogeneity of the work group would effect group relationships and dynamics which in turn would impact task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity.

3.1.2 Managers' Universal Diverse Orientation

The full benefits of diversity will only be realized when management empowers employees to draw upon their differences. Management plays a crucial role in the acceptance and promotion of diversity within the organization. They have the power to embrace or ignore diversity by facilitating how it is integrated into the organization's culture (Barry, 1996). Managers often make decisions that are consistent with their personal values and experiences and ultimately these experiences and values will be linked to organizational outcomes (Hambrick and Mason, 1984). As a result it is

important for management to be aware of their own beliefs, stereotypes and biases, as this will impact both personal and work relationships. This is largely dependent on managements' awareness and acceptance of the differences and similarities between people, their experience of working in a diverse environment and where they place diversity on their list of organizational practices (Barry, 1996).

Universal Diverse Orientation is defined as “an attitude of the awareness and acceptance of both the similarities and differences among people” (Miville et al., 1999, p.291). It is comprised of three variables, diversity of contact, relativistic appreciation and comfort with differences. “Diversity of contact assesses both previous and intended behaviours relevant to interpersonal contact with people of different demographic backgrounds. Relativistic appreciation assesses the recognition and acceptance of the similarities and differences between people. Comfort with differences assesses the emotional bond one feels towards others” (Miville et al., 1999 p.292). All three dimensions of Universal Diverse Orientation are crucial to effective interaction with diverse others (Vontress, 1996).

As a result it was expected that a manager's Universal Diverse Orientation would impact organizational outcomes by fostering a work environment that promotes different levels of task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity.

3.1.3 Work Group Culture

Work group culture is a powerful force in determining work group interactions and as a result “changes embracing workforce diversity can run into a barrier at the level of organizational culture” (Miller and Rowney, 1999 p. 28). Thomas and Ely (1996) and Dass and Parker (1999) have identified four diversity paradigms, which describe organizational approaches to diversity: resistance, discrimination and fairness, access and legitimacy, and learning and effectiveness. Each paradigm builds upon the previous in its understanding and acceptance of the differences that exist between people. The discrimination and fairness paradigm emphasizes assimilation, the access and legitimacy paradigm emphasizes differentiation, and the learning and effectiveness paradigm emphasizes integration.

Specifically each paradigm “proposes a framework that links managers’ perspectives and priorities to managing diversity, organizational outcomes and performance (Dass and Parker, 1999 p. 68). Research has assumed that organizations typically adopt one paradigm (Thomas and Ely, 1996; Dass and Parker, 1999). However, many subcultures exist within an organization’s culture (Weiner, 1997). For example, every function has its own culture and each work unit has a culture (Weiner, 1997). Similarly, multiple diversity paradigms can be functioning in a single organization. Each paradigm will henceforth be referred to as work group culture since multiple cultures can exist within one organization (Weiner, 1997).

The organization's culture has the power to derail diversity initiatives and often is the root of misguided stereotypes and biases. Organizations have to learn to value their employees' differences and understand that diversity can have beneficial outcomes if managed properly. This requires not only a careful examination of organizational history and tradition but it also requires that management and employees understand how participants experiences differ (Bond and Pyle, 1998). The work group culture serves as the building block for valuing diversity and inclusivity (Weiner, 1997) and will create work environments with varying degrees of task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity.

In conclusion work group diversity, managers' Universal Diverse Orientation and work group culture were expected to impact variables related to organizational outcomes. The following figures illustrate the hypothesized relationships between work group diversity, Managers' Universal Diverse Orientation and work group culture and task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. The next section will examine and explain the hypothesized relationships.

Figure II: Model of the Impact of Work Group Diversity on Organizational Outcomes

Figure III: Model of the Impact of Managers' Universal Diverse Orientation on Organizational Outcomes

Figure IV: Model of the Impact of Work Group Culture on Organizational Outcomes

Figure IV: Model of the Impact of Work Group Culture on Organizational Outcomes

(cont'd)

3.2 Dependent Variables

This section will examine the 6 dependent variables: three aspects of conflict (task conflict, emotional conflict and conflict openness norms), team orientation, communication, and creativity.

3.2.1 Conflict

Conflict is natural when people work together specifically when ideas, values and beliefs clash. Conflict can be viewed as both an asset and a liability to organizational outcomes. It can become a successful ingredient in terms of generating new ideas and solutions (Capozzoli, 1995) while at the same time, it can cause tension among group members, which can be destructive to the functioning of the team. Researchers have identified two types of conflict that exist within the work environment, task and emotional conflict. Task conflict “exists when there are disagreements among group members about the content of the tasks being performed, including differences in viewpoints, ideas, and opinions” (Jehn, 1995 p. 258). Emotional conflict “exists when individuals sort each other into social categories, often on the basis of demographic attributes, and clashes are characterized by anger, resentment, and other negative feelings” (Jehn, 1995 p. 258).

Conflict frequently arises in work groups, tasks are often interpreted differently because employees bring their own experience(s) and belief systems to the job (Walsh, 1998; Wiersema and Bantel, 1992). Research has shown that diversity in functional background has a positive association with task conflict (Pelled et al., 1999) while tenure, gender, age, and race do not affect task conflict (Pelled et al., 1999).

Emotional conflict is likely to emerge as the diversity within the work group increases (Pelled et al., 1999). Employees are placed into categories based on observable diversity variable(s) (Pelled, 1996). In turn this categorization may cause employees to feel that their views and perspectives are being scrutinized because they conflict with the group norm (Lau and Murnighan, 1998). Research has shown that differences in gender and ethnicity are related to interpersonal tension and lower levels of friendliness (Riordan and Shore, 1997). As a result it was expected that the more diverse a work group the higher the emotional conflict.

Hypothesis 1_A: The greater the diversity within the work group, the higher the amount of task and emotional conflict.

Both task and emotional conflict were expected to effect group dynamics. However, how the group responded to conflict was also expected to depend on the group's conflict norms. Like any group norm, conflict norms are informal and define boundaries of acceptable behaviour (Daft and Fitzgerald, 1992). They are established over time and are tacitly agreed upon by group members (Jehn, 1995). The norms dictate whether conflict is dealt with openly or avoided at any and all costs (Jehn, 1995). In essence they determine how group members perceive conflict and the degree to which conflict influences performance and members' attitudes (Jehn, 1995). The norms may encourage conflict as an opportunity to discuss opinions and ideas (Jehn, 1995). Or they may view conflict as destructive to group functioning. Research has shown that conflict norms which encourage openness are expected to amplify the positive effects of conflict and

decrease its negative effects (Jehn, 1995). As a result this research will define conflict norms as an openness towards the positive aspects of conflict (Jehn, 1995).

Norms work strongly for a group when the group is highly cohesive (Daft and Fitzgerald, 1992). In diverse work group this cohesiveness is harder to attain as employees do not always share the same attitudes, values and beliefs (Tsui et al., 1992). It was therefore expected that as diversity increased within the work group there would be less agreement regarding conflict norms and consequently conflict would be handled less effectively.

Hypothesis 1_B: The greater the diversity within the work group, the less likely that conflict norms will promote openness.

How group members respond to conflict is also moderated by management's views and behaviour towards conflict. Management has the ability to foster work environments which either suppress or address conflict. Conflict can either be perceived as a successful ingredient of group productivity and performance or as a deterrent to group functioning (Capozzoli, 1995). The manager's work experience and previous interaction with diverse individuals often influences how they handle conflict. As management learns about the diverse experiences of his or her employees, an understanding is obtained about different cultural and personal backgrounds. However not all conflict is handled in the same manner. Emotional conflict is often avoided as personal feelings and emotions are involved. On the other hand task conflict can often be solved much more easily as disagreements about procedures and methods are often the root of the tension (Pelled et al., 1999). As a result it was expected that the higher the manager's Universal Diverse

Orientation the lower the emotional and task conflict and the more likely that conflict norms would view conflict as an opportunity instead of a threat.

Hypothesis 2_A: The higher the manager's Universal Diverse Orientation, the lower the amount of task and emotional conflict.

Hypothesis 2_B: The higher the manager's Universal Diverse Orientation, the more likely that conflict norms will promote openness.

How management deals with conflict will determine whether the work environment encourages complacency or motivates employees to learn from the ideas of others (Capozzoli, 1995). When the work group's culture is factored into the equation the benefits and costs of conflict become even more apparent. Each work group culture views conflict differently. The resistance culture wants to sustain the status quo and therefore avoids conflict, the discrimination and fairness culture wants everyone to think the same and also wants to keep conflict to a minimum. The access and legitimacy culture will accommodate conflict and the opportunities that it affords, and the learning and effectiveness culture will encourage conflict as a way to generate ideas and solutions. In essence, each culture builds upon the previous in recognizing that conflict is not always deleterious to group functioning. As a result it was expected that each work group culture would promote and accept different levels of conflict (Thomas and Ely 1996; Dass and Parker, 1999).

Hypothesis 3_A: A work group culture of resistance will suppress task and emotional conflict.

- Hypothesis 3_B:** A work group culture of resistance will be negatively associated with conflict openness norms.
- Hypothesis 3_C:** A work group culture of discrimination and fairness will suppress task and emotional conflict.
- Hypothesis 3_D:** A work group culture of discrimination and fairness will be negatively associated with conflict openness norms.
- Hypothesis 3_E:** A work group culture of access and legitimacy will be positively associated with task and emotional conflict.
- Hypothesis 3_F:** A work group culture of access and legitimacy will be positively associated with conflict openness norms.
- Hypothesis 3_G:** A work group culture of learning and effectiveness will be positively associated with task and emotional conflict.
- Hypothesis 3_H:** A work group culture of learning and effectiveness will be positively associated with conflict openness norms.

3.2.2 Team Orientation

Teamwork and work relationships play a crucial role in meeting performance objectives (Guzzo and Dickson, 1996; Campion et al., 1993). Of critical importance is the employee's sense of belonging and commitment to the team; only when the employee feels valued will the team benefit from the diverse skills and expertise of all those involved (Dose and Klimoski, 1999; Rodwell et al., 1998). A team is defined as "a diverse group of people who share leadership responsibility for creating a group identity in an interconnected effort to achieve mutually defined goals within the context of other groups and systems" (Harper and Rifkind, 1995 p. 65). A strong team orientation is one where perceptions about interactions, communication patterns, levels of trust and participation enhance work toward the group's goals (Isabella and Waddock, 1994).

Teams composed of individuals who are familiar with one another carry out their work with greater effectiveness than teams composed of strangers (Guzzo and Dickson, 1996). Performance will be enhanced because employees are aware of each other's skills and abilities. In today's rapidly changing work environment it becomes challenging for managers to create teams whose group members have surpassed the forming and storming stage of group development and are able to carry out work effectively as a team. Research has also shown that as work force diversity increases group members experience lower levels of psychological attachment (Tsui et al., 1992) because employees become apprehensive when they have to work with people who are different from themselves (Riordan and Shore, 1997). As a result it was expected that the greater the diversity within the work group the lower the team orientation.

Hypothesis 4: The greater the diversity within the work group, the lower the team orientation.

However it is not just the responsibility of team members to promote and adhere to teamwork. Management and the work groups culture must also invite team members to collectively work together and draw from each other's strengths and weaknesses. If management wants employees to function as a team they themselves have to be aware of people's fundamental similarities and differences, otherwise effective interactions will not occur (Vontress, 1996). As a result it was expected that the higher the manager's Universal Diverse Orientation, the higher the team orientation.

Hypothesis 5: The higher the manager's Universal Diverse Orientation, the higher the team orientation.

The work group culture also plays a crucial role in a team's orientation. Each of the four cultures promote different levels of team orientation, the resistance culture emphasizes individualism rather than collectivism, the discrimination and fairness culture focuses upon everyone thinking and acting the same way. The access and legitimacy culture attempts to accommodate all ideas by listening to but not necessarily integrating any ideas, which deter from the norm. The learning and effectiveness culture attempts to draw from the different experiences and ideas of all those involved (Thomas and Ely, 1996; Dass and Parker, 1999). As a result it was expected that each work group culture would promote varying levels of team orientation.

Hypothesis 6_A: A work group culture of resistance will be negatively associated with team orientation.

Hypothesis 6_B: A work group culture of discrimination and fairness will be positively associated with team orientation.

Hypothesis 6_C: A work group culture of access and legitimacy will be positively associated with team orientation.

Hypothesis 6_D: A work group culture of learning and effectiveness will be positively associated with team orientation.

3.2.3 Communication

Effective communication depends on being aware of the similarities and differences between people (Miville et al., 1999) and adjusting communication modes to fit the medium. There are broadly two types of definitions of communication. The first sees

communication as a “process by which A sends a message to B upon whom it has an effect. The second sees communication as a negotiation and exchange of meaning, in which messages, people-in-cultures and ‘reality’ interact so as to enable meaning to be produced or understanding to occur” (O’Sullivan et al., 1983 p. 42).

Communication skills play an integral part in the perceived quality of working relationships (Avtgis, 2000). As diversity within the work group increases so does the potential for communication misunderstandings. Even though the same language is spoken, conflict and miscommunication may arise because of different values, interpretations and perspectives (Weiner, 1997). Weiner (1997), provides an insightful examination of the communication misunderstandings that can occur within a diverse group and notes that the root of misunderstandings are often multi-dimensional. Context, directness and non-verbal communications all play a role in communication misunderstandings as the norms for these practices vary by culture. For example, in North America if a person is being indirect they are perceived as hiding something, unlike Japan where being indirect is the cultural norm (Weiner, 1997). Therefore it was expected that as the diversity within a work group increased so did the potential for communication misunderstandings.

Hypothesis 7: The greater the diversity within the work group, the lower the communication.

It is important for managers to educate themselves and their employees about different styles of communication. As managers interact with people from a variety of

backgrounds and experiences they will become aware of the many different communication styles that exist. As a result it was expected that the higher the manager's Universal Diverse Orientation the higher the communication within the work group.

Hypothesis 8: The higher the manager's Universal Diverse Orientation, the higher the communication.

The flow of communication is also dependent on the norms, traditions and internal policies and procedures of the work group's culture. A work group culture of resistance will restrict or confine communication to certain individuals or work groups. Communication processes are not shared with diverse employees in order to maintain the status quo. The discrimination and fairness culture will encourage all employees to communicate in the same manner and will not embrace variation. The access and legitimacy culture will attempt to accommodate different communication styles. The learning and effectiveness culture will embrace and learn about different communication styles (Thomas and Ely, 1992; Dass and Parker 1999). Therefore it was expected that each culture would promote and encourage various styles and methods of communication.

Hypothesis 9_A: A work group culture of resistance will be negatively associated with communication.

Hypothesis 9_B: A work group culture of discrimination and fairness will be negatively associated with communication.

Hypothesis 9_C: A work group culture of access and legitimacy will be positively associated with communication.

Hypothesis 9_b: A work group culture of learning and effectiveness will be positively associated with communication.

3.2.4 Creativity

Creativity is defined as “the production of novel and useful ideas in any domain” (Amabile et al., 1996 p. 1155). Much of the research on diversity has focused on group productivity and creativity. However, the impact of diversity on work group creativity and productivity is not clear. Although some studies have found that diversity impedes creativity (Williams and O’Reilly, 1998), most studies have found that diversity increases the opportunity for creativity (Wheeler, 1996; Milliken and Martins, 1996). When work teams are comprised of individuals from a variety of functional and personal backgrounds, each individual brings their own ideas and strengths to the team. As the diversity within the work group increases, so does the array of opinions and perspectives held by group members. As more skills, knowledge and abilities are brought to the work group (Elsass and Graves, 1997) the potential for creativity increases (Lau and Murnighan, 1998). Thus more heterogeneous work groups have a higher potential for creativity.

Hypothesis 10: The greater the diversity within the work group, the higher the creativity.

Unfortunately, creativity can be undermined if the work group does not receive support and encouragement from management (Amabile, 1997) and the work groups culture. Managerial practices play a crucial role in determining whether a work environment fosters or kills creativity (Amabile, 1998). If management is supportive and receptive to

the diverse perspectives and background of all employees, creativity will be enhanced due to the different expertise and thinking styles employed (Amabile, 1998). It is therefore essential that employees are supported by management in their attempt to generate creativity through collaboration and communication of new ideas (Amabile, 1998). A manager will only be able to experience the benefits of creativity when they are open and receptive to all individuals in the work group. As a result it was expected that the higher the manager's Universal Diverse Orientation the higher the creativity of the work group.

Hypothesis 11: The higher the manager's Universal Diverse Orientation, the higher the creativity.

The work group's culture also plays a prominent role in work group creativity (Amabile, 1997). The resistance culture will stifle creativity because its focus is on sustaining homogeneity. The discrimination and fairness culture treats differences as problematic thus thinking differently and creatively will be discouraged. The access and legitimacy culture will accommodate creativity in the hopes that creativity will lead to market opportunities. The learning and effectiveness culture will embrace creativity and will celebrate the creation of new ideas (Thomas and Ely, 1996; Dass and Parker 1999). Therefore it was expected that each culture would promote and encourage various levels of creativity.

Hypothesis 12_A: A work group culture of resistance will be negatively associated with creativity.

Hypothesis 12_B: A work group culture of discrimination and fairness will be negatively associated with creativity.

Hypothesis 12_C: A work group culture of access and legitimacy will be positively associated with creativity.

Hypothesis 12_D: A work group culture of learning and effectiveness will be positively associated with creativity.

3.3 Summary

In conclusion research has shown that diversity in the work environment and attitudes towards it can impact variables related to organizational outcomes. Table 3.1 summarizes the hypothesized effects of work group diversity, managers' Universal Diverse Orientation and the work group culture on task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. In essence it was expected that diversity would enhance creativity but would have negative effects on other organizational outcomes unless supported by an open style of management and work group culture.

Table 3.1 Summary of the Hypothesized Relationships

Independent Variables	Dependent Variables
Work Group Diversity (+) UDO (-) R (-) D&F (-) A&L (+) L&E (+)*	Task Conflict
Work Group Diversity (+) UDO (-) R (-) D&F (-) A&L (+) L&E (+)	Emotional Conflict
Work Group Diversity (-) UDO (+) R (-) D&F (-) A&L (+) L&E (+)	Conflict Openness Norms
Work Group Diversity (-) UDO (+) R (-) D&F (+) A&L (+) L&E (+)	Team Orientation
Work Group Diversity (-) UDO (+) R (-) D&F (-) A&L (+) L&E (+)	Communication
Work Group Diversity (+) UDO (+) R (-) D&F (-) A&L (+) L&E (+)	Creativity

*R represents the resistance work group culture, D&F represents the discrimination and fairness work group culture, A&L represents the access and legitimacy work group culture, and L&E represents the learning and effectiveness work group culture.

+ indicates that the predictor will increase the dependent variables

- indicates that the predictor will decrease the dependent variables

CHAPTER 4: MEASUREMENT DEVELOPMENT

The objective of this research was to examine the impact of diversity on organizational outcomes. Specifically, the relationship between work group diversity, managers' Universal Diverse Orientation, work group culture, and task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity was examined. The research included the development of a new measure based on Thomas and Ely (1996) and Dass and Parker's (1999) diversity paradigms. The measure was developed primarily because no other measure of work group culture existed in the diversity literature and because work group culture was a key variable in the diversity model. The following chapter will detail the development and validation of the work group culture measure.

4.1 Scale Development

The work group culture measure was based upon Thomas and Ely (1996) and Dass and Parker's (1999) diversity paradigms. Thomas and Ely (1996) and Dass and Parker (1999) identified four work group cultures which describe the acceptance and promotion of diversity within the organizations structure: resistance, discrimination and fairness, access and legitimacy, and learning and effectiveness. Each work group culture builds upon the previous and is largely dependent on the views and beliefs of the employees and the employer. It was felt that such a work group culture measure would contribute to the diversity literature and would assist in identifying barriers to diversity and inclusivity.

Thomas and Ely (1996) and Dass and Parker (1999) conclude that work groups adopt one of the four work group cultures as their dominant approach to diversity. This approach both guides and shapes the acceptance and promotion of diversity within the work group. This would suggest that work group culture be treated as one single variable, however as Trice and Beyer point out cultures “are not monolithic single sets of ideas, but rather incorporate contradictions, ambiguities, paradoxes and just plain confusion (Trice and Beyer, 1993 p. 8). The strategy devised to address this issue was to develop scales measuring all 4 paradigms and complete the analysis using both measurement approaches (work group culture as a single variable versus work group culture as measured by the four scales).

The development of the measures involved the construction of items relating to each of the 4 work group cultures. Each work group culture was examined in order to develop items that were reflective of the following five areas:

1. What is the rationale for employing a diverse workforce?
2. How does the work group respond to diversity?
3. What are the costs and benefits of employing a diverse workforce?
4. How are employees treated?
5. What is the basis for employment decisions?

The researcher and academic advisor then examined items to ensure that they represented the related work group culture. The items were pre-tested on an individual familiar with the diversity literature and minor adjustments were made for clarity. See Appendix 2 for the original 33 items.

4.2 Data Collection

The next step involved testing the measure on 51 respondents from the Management Development Program for Women and Management Certificate Program offered at Carleton University. The sample included 15 men and 36 women who ranged from 21 to 53 years of age. The mean age was 43 years. Respondents had been in the work force for an average of 17 years with 22% in senior management, 31% in middle management, 20% in first level management and 22% in professional or technical positions. The researcher informed respondents that data was being collected to test the validity of a new measure of work group culture. Respondents were asked to identify the extent to which they agreed or disagreed with 33 statements about their work group, where 1 indicated “strongly disagree” and 5 indicated “strongly agree”. Respondents were given a brief description of some key terms used in the items. Diversity was defined as a “workplace that reflects differences with respect to gender, age, ethnic background, education, family status, religion and disability for instance.” A work group was defined as the “people with whom you currently work closely on a day to day basis” (Amabile, 1995 p.4). In addition to indicating their level of agreement respondents were asked to comment on both the format and the structure of the items. See Appendix 3 for the work group culture questionnaire.

Table 4.1 shows the initial Cronbach alpha for each work group culture. Statistical support was encouraging for the measure of the resistance culture, with an alpha of 0.77 and for the learning and effectiveness culture measure, which had an alpha of 0.79. However the access and legitimacy culture measure had an alpha of 0.44 and the

discrimination and fairness culture measure had an alpha of -0.14 indicating that some items were in fact negatively correlated with each other. Nunnally recommends a Cronbach alpha of 0.80 for the validation of new measures (Nunnally, 1978).

Table 4.1: Work Group Culture Scales Initial Alphas

Work Group Culture	Number of Items	Cronbach Alpha
Resistance	9	0.77
Discrimination and Fairness	8	-0.14
Access and Legitimacy	8	0.44
Learning and Effectiveness	8	0.79

In general, comments and concerns that were raised by respondents pertained to specific statements, however one overarching issue emerged that needed to be addressed. Respondents appeared to be confused about whether the items pertained to the views of the work group or the view of the individual alone. Although it was explicitly stated at the beginning of the questionnaire that the statements related to the views of the work group, the phrase “in my work group” was added throughout the list of statements to increase clarity. One respondent stated that a not-applicable category should be added. This suggestion was not implemented as respondents were presented with a wide enough array of alternatives.

After addressing general concerns and comments the next step involved examining comments raised by the respondents that were item specific. Items were reexamined if 1) the average inter-item correlation was low, 2) the Cronbach’s alpha would increase if the item was removed from the measure, or 3) respondents had difficulty understanding the item. The next section examines the measure for each work group culture.

4.3 Assessing the Scales

Resistance

The original 9-item measure of the resistance work group culture had an alpha of 0.77, however three items were of concern to a number of respondents (see Table 4.2). The items appeared to cause confusion, shown both in comments made by respondents and the low inter-item correlations.

Table 4.2 Resistance Items

Item	Comments	Inter-item correlation	Alpha if item deleted
Diversity is viewed as a marginal issue (item 9)	☐ Some people may not understand marginal ☐ Not sure of meaning ☐ Need to expand on word marginal ☐ ? ☐ Don't know what you mean	0.26	0.77
Diversity initiatives are viewed as a waste of time and money (item 24)	☐ We don't do any	0.23	0.78
Differences between people are ignored (item 26)	☐ Should be worded differently, has negative connotations	0.19	0.78

Each item was examined by the researchers to determine its centrality to the construct. Item 9 “diversity is viewed as a marginal issue” was deleted because its meaning appeared to cause confusion to respondents. Item 24 “diversity initiatives are viewed as a waste of time and money” assumes that all organizations have diversity initiatives. Since this is not always the case the item was deleted. Finally item 26 “differences between people are ignored” was deleted due to the ambiguous nature of the statement. It was felt that deleting these items from the measure would create a more coherent measure and

eliminate confusion. The final resistance work group culture scale had an alpha of 0.81 with 6 items.

Discrimination and Fairness

The 8-item measure of the discrimination and fairness work group culture had the lowest alpha (see Table 4.3). This was of concern as most organizations operate somewhere between the discrimination and fairness work group culture and the access and legitimacy work group culture (Thomas and Ely, 1996; Dass and Parker, 1999). The researchers re-examined each item to determine its centrality to the discrimination and fairness work group culture. Each item appeared significant which led the researchers to question the inter-item correlations. Of concern was the fact that 6 items had a negative inter-item correlation and that alpha would increase if 7 out of the 8 items were removed.

Table 4.3 Discrimination and Fairness Items

Item	Comments	Inter-item correlation	Alpha if item deleted
Differences between people are treated as a problem (item 4)	This phrase is hard to understand what did you intend to ask?	-0.09	-0.08
Employment Equity Legislation is seen as a necessary evil (item 7)		-0.0017	-0.17
Employment Equity requirements increase the pressure for diversity (item 14)		-0.05	-0.12
Expressing attitudes and values that go against the group norm is discouraged (item 30)	Whose group norm?	-0.06	-0.11

Items 4, 7, 14 and 30 did not appear to contribute strongly to the measure. As a result the researchers decided to delete them from the measure. Item 4 “differences between people

are treated as a problem” was deemed unclear and ambiguous. Items 7 and 14 were removed on the basis that people who support diversity might not necessarily support Employment Equity legislation. Finally item 30 “expressing attitudes and values that go against the group norm is discouraged” was deleted on the grounds that this could be true in any cohesive work group regardless of diversity. After removing these items alpha increased to 0.40 but remained below the 0.80 that Nunnally (1978) recommends for new measures. The researchers then examined the items that had been deleted from the resistance work group culture and the access and legitimacy work group culture. After carefully examining each item the researchers decided to add item 26 “differences between people are ignored” which was originally proposed for inclusion in the resistance work group culture. On reflection the item appears to be more closely related to the discrimination and fairness work group culture than the resistance work group culture. By adding item 26, alpha increased to 0.53. In the hopes of increasing the alpha the researchers added two new items to the work group culture measure: “People feel that diversity management should create an organization that is blind to race, gender and ethnicity” and “People believe fairness means treating everyone the same way.” Due to time constraints a second pre-test could not be administered.

Access and Legitimacy

The 8-item measure of the access and legitimacy work group culture had an alpha of 0.44, which is below the 0.80 suggested for the validation of new measures (Nunnally, 1978). The inter-item correlations for the work group culture items ranged from -0.15 to +0.49 (see Table 4.4). Respondents commented about the wording of a few items,

primarily that they were not sure if they were to respond from the work group's point of view or the individuals alone. As mentioned earlier "in my work group" was added to a number of items in order to clarify this situation. Two items "a diverse workforce is viewed as socially desirable" (item 5) and "diversity in the workplace is encouraged because of the changing mix in the Canadian workplace" (item 22) were of particular concern in terms of the inter-item correlations. In addition both items appeared to create interpretation problems for respondents. These items were deleted on the grounds that they were ambiguous.

Table 4.4 Access and Legitimacy Items

Item	Inter-item correlation	Alpha if item deleted
A diverse workforce is viewed as socially desirable (item 5)	-0.09	0.51
The only asset a diverse workforce brings to the workplace is knowledge about customers from diverse groups (item 17)	-0.0032	0.47
Diversity in the workplace is encouraged because of the changing mix in the Canadian workplace (item 22)	-0.15	0.54

In addition one item required clarification. Item 13 "employees believe that customers want to look inside the company and see people like themselves", was expanded to read "for instance gender, age, ethnic background, education, family status, religion and disability" to ensure that all respondents had the same interpretation.

Ironically item 17 "the only asset a diverse workforce brings to the workplace is knowledge about customers from diverse groups" had an inter-item correlation of -0.0032 and alpha would increase if the item were removed (from 0.44 to 0.47). This item is

central to the conceptualization of the access and legitimacy work group culture and respondents did not comment on its meaning or interpretation. Thus it was retained in the final measure. The final access and legitimacy work group culture scale had an alpha of 0.64 and 6 items.

Learning and Effectiveness

The 8-item measure of learning and effectiveness work group culture had the highest alpha of 0.79. One respondent had questions on item 10 (see Table 4.5). Instead of deleting the item (which would have reduced alpha), the wording was clarified. The revised item is “employees are not allowed to incorporate their own experiences and perspectives into day-to-day work activities.” Item 21 was deleted on the grounds that it had a low inter-item correlation of 0.21 meaning that it was not as highly correlated with the other learning and effectiveness items. The final learning and effectiveness work group culture scale had an alpha of 0.80 and 7 items.

Table 4.5 Learning and Effectiveness Items

Item	Comments	Inter-item correlation	Alpha if item deleted
Employees are not allowed to incorporate their own experiences and perspectives into day to day operations (item 10)	☐ Can you be more specific, do you mean day to day meetings or actual results such as reports/strategies etc.?	0.49	0.77
Employees are proactive in learning about differences between people (item 21)		0.21	0.80

4.4 Summary

In conclusion, results for the new measures of work group culture were promising. The resistance culture measure and learning and effectiveness culture measure each had an alpha over 0.80. The discrimination and fairness work group culture measure and the access and legitimacy work group culture measure required some redefinition but the results are more coherent measures of work group culture. Table 4.6 shows the final number of items for each work group culture scale and the Cronbach's alpha for the updated scales. The complete 26-item set of work group culture scales appears in Appendix 4.

Table 4.6: Work Group Culture Scales

Work Group Culture	Alpha	Cronbach α
Resistance	6 items	0.81
Discrimination and Fairness	5 items*	0.53
Access and Legitimacy	6 items	0.64
Learning and Effectiveness	7 items	0.80

* Two new items were developed used in the model testing survey.

CHAPTER 5: METHODOLOGY FOR MODEL TESTING

The objective of this research was to examine the impact of diversity on variables related to organizational outcomes. The model examined the relationship between work group diversity, managers' Universal Diverse Orientation, work group culture, and task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. Following is a discussion of the sample, the measures, and the methodology used to assess the impact of diversity on variables related to organizational outcomes.

5.1 Data Collection

A financial institution with branches located throughout Canada was selected for the research. The sampling population was comprised of managers located in Ottawa, Kanata, Barrhaven and Orleans. A census was conducted: all Ottawa area managers were asked to respond to the questionnaire.

The financial institution employs three levels of management in each branch, the Branch Manager, Manager of Customer Sales and Service (MCSS) and Manager of Customer Service (MCS). The MCSS and MCS are each responsible for separate work groups with the branch manager overseeing the productivity of the entire branch. Data was collected from the MCSS and MCS only (not the branch manager) to ensure that data was collected from non-overlapping work groups.

The data was collected by distributing surveys via inter-branch mail to the 38 managers in the 19 Ottawa area branches. Each manager received an informed consent form, a

cover letter outlining the objectives of the study, the questionnaire, instructions and two return envelopes. One envelope was used to return the survey and the second to return the informed consent form. The rationale for two return envelopes was to ensure anonymity. To encourage a high response rate follow-up e-mails were sent to managers at each branch thanking them for their participation and encouraging non-respondents to return the questionnaire and the informed consent form (see Appendix 5 for follow-up materials). The researcher is an employee of the financial institution and therefore the surveys were returned to the branch in which she worked.

5.2 The Questionnaire

The questionnaire (see Appendix 6 for the complete questionnaire) consisted of three sections: A) attitudes about diversity and organizational outcomes, B) characteristics of the work group and C) personal information. At the beginning of the questionnaire, key words such as diversity and work group were defined. This ensured clarity and understanding of the terminology. Section A related to the work group culture, managers' Universal Diverse Orientation and organizational outcomes, specifically task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. Section B took a closer look at the demographic characteristics of the work group. Section C collected the demographics of the respondent along with the length of time the respondent had worked at the financial institution, the length of time at the current branch and the length of time in their current position.

The questionnaire was pre-tested on a branch manager. This collaboration helped to ensure that the questions were clear and appropriate for each work group. The branch manager has knowledge about both the MCSS and MCS jobs and was therefore a good candidate for pre-testing.

5.3 Measures

The model consisted of 3 independent variables and 6 dependent variables. The independent variables were work group diversity, managers' Universal Diverse Orientation, and work group culture. The dependent variables were task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. Wherever possible scales were adopted which previous researchers had validated. Following are the measures used to operationalize the variables in the model of the impact of diversity on variables related to organizational outcomes.

5.3.1 Independent Variables

Based on the review of the literature, the variables which seem to be most clearly related to organizational outcomes such as task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity were work group diversity, the manager's Universal Diverse Orientation and work group culture.

5.3.1.1 Work Group Diversity

This study measured the following diversity characteristics: age, gender, length of service, employment status and ethnic background. Diversity was measured using Blau's

heterogeneity index. Blau's heterogeneity index is a widely accepted measure of work group heterogeneity that has been used in a number of work group studies (Smith et al., 1994; Pelled et al., 1999 and Harrison et al., 2000). The index measures the degree to which there is dispersion of a particular attribute across sub-groups in a specified population (Blau, 1977). Blau's heterogeneity index is calculated as follows (Blau, 1977):

$$H = 1 - \sum_{i=1}^I (P_i)^2$$

Where: P_i is the proportion of group members in category I
 i is the number of possible categories

High scores on the index indicate variability among team members or heterogeneity; lower scores represent homogeneity (Smith et al., 1994). For example, in a given team of ten members where 5 are men and 5 are women, then P_1 equals 0.5 and P_2 equals 0.5 and H equals 0.5. If a team consists of 1 man and 9 women, then P_1 equals 0.1 and P_2 equals 0.9 and H equals 0.18.

5.3.1.2 Universal Diverse Orientation

The Miville-Guzman Universality-Diversity Scale (M-GUDS) was used to assess the managers' views on diversity. The M-GUDS has an alpha of 0.89. Specifically the scale examines a person's universal diverse orientation (UDO) which "reflects an attitude of both the awareness and acceptance of both the similarities and differences among people (Miville et al., 1999 p. 291). The measure includes 3 subscales: diversity of contact, (assessing both previous and intended behaviours relevant to interpersonal contact with people of different demographic backgrounds), relativistic appreciation (recognition and

acceptance of the similarities and differences between people) and comfort with differences (the emotional bond one feels towards others). The 3 subscales can be combined to assess an individual's overall Universal Diverse Orientation.

Statements included in the measure are not restricted to the work environment therefore providing a comprehensive view of attitudes toward diversity (Miville et al., 1999). The 5-item diversity of contact scale included items such as "I am interested in learning about the many cultures that have existed in the world" and "I attend events where I might get to know people from a different racial background." Sample items from the 5-item relativistic appreciation scale are "I can best understand someone after I get to know how he/she is both similar and different from me" and "Persons with disabilities can teach me things I could not learn elsewhere." The comfort with differences items were all reverse-scored, and included, for example, "I often feel irritated by persons of a different race" and "Getting to know someone of another race is generally an uncomfortable experience for me."

The 15 items were measured using a 6 point Likert scale where 1 indicated "strongly disagree" and 6 indicated "strongly agree". No changes could be made to the scale or the statements due to copyright restrictions. The score from each subscale was combined to determine the total M-GUDS score. A higher score indicates a greater awareness and acceptance of differences.

5.3.1.3 Work Group Culture

Thomas and Ely (1996) and Dass and Parker (1999) conclude that work groups adopt one of the four work group cultures as their dominant approach to diversity. This approach both guides and shapes the acceptance and promotion of diversity within the work group. However as Trice and Beyer (1993) point out, cultures “are not monolithic single sets of ideas, but rather incorporate contradictions, ambiguities, paradoxes and just plain confusion” (Trice and Beyer, 1993 p. 8). This fuzziness is reflected in the work group culture and as a result can heighten the complexity of the work groups functioning (Trice and Beyer, 1993). Thus it is possible that the work groups may simultaneously hold values reflecting different diversity paradigms. The implications of treating work group culture as 1 scale versus 4 separate scales was assessed by analyzing data from both approaches.

The 26-items were measured using a 5-point Likert scale. (The development of the work group culture measure was discussed in Chapter Four.) Managers were asked to identify the extent to which each item described their work group where -2 indicated “strongly disagree” and +2 indicated “strongly agree”. The work group culture of resistance, included, for example, “The costs of complying with Employment Equity legislation are believed to outweigh its benefits.” The work group culture of discrimination and fairness included, for example, “People feel that diversity management should create an organization that is blind to race, gender and ethnicity.” The work group culture of access and legitimacy included, for example, “In my work group employees often get pigeon holed into token positions because of their ethnic background, gender, age,

religion, family status and/or disability for instance.” The work group culture of learning and effectiveness included, for example, “Employment decisions are based on skills, abilities and personal experiences rather than on quotas.”

Table 5.1 provides a summary of the constructs and measures used for the independent variables.

Table 5.1: Independent Variable Measures

Independent Variable	Measure	Supporting Study	Cronbach α from supporting study
Work Group Diversity	Blau's Heterogeneity Index	Smith et al., 1994 Pelled et al., 1999 Harrison et al., 2000	N/A
Universal Diverse Orientation	15 items	Miville et al., 1999	0.89
Work Group Culture		Measurement Development	
• Resistance	6 items		0.81
• Discrimination and Fairness	7 items*		0.53*
• Access and Legitimacy	6 items		0.64
• Learning and Effectiveness	7 items		0.80

* Alpha based on 5 items used in the measurement development. Two new items were added to the model testing study.

5.4 Organizational Outcomes

Six dependent variables: task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity were examined.

5.4.1 Conflict

Conflict occurs when the parties involved hold discrepant views or have interpersonal incompatibilities (Jehn, 1995). Specifically researchers have identified two types of

conflict that exist within the work environment: emotional and task conflict. Emotional conflict “exists when individuals sort each other into social categories, often on the basis of demographic attributes, and clashes are characterized by anger, resentment, and other negative feelings” (Jehn, 1999 p. 4). Task conflict “exists when there are disagreements among group members about the content of the tasks being performed, including differences in viewpoints, ideas, and opinions” (Jehn, 1995 p. 258). Both task and emotional conflict are moderated by the group’s conflict norms, which dictate how the group members respond to conflict.

The conflict measures were adapted from Jehn, (1994; 1995) and were comprised of 8 items addressing task conflict and emotional conflict. The task and emotional conflict items were modified, for example instead of asking “To what extent are the arguments in your team task related” the item asked, “ Are arguments in your work group task related.” The word team was replaced with work group to ensure consistency throughout the entire questionnaire.

The 4-item scale used to measure task conflict, had an alpha of 0.78 (Pelled et al., 1999) and included, for example, the following items “Do members of your work group disagree about how things should be done?” and “Are there differences of opinion in your work group?” The emotional conflict scale also consisted of 4-items, and had an alpha of 0.83 (Pelled et al., 1999). Sample items included “Are personality clashes evident in your work group?” and “Do people get angry while working in your work group?”

Conflict openness norms were measured with a scale based on Cosier and Dalton's 1990 Openness Scale of the Decision Conflict and Cooperation Questionnaire. The wording had been adapted by Jehn (1995) in order to measure the openness of conflict at the group level and had an alpha of 0.74. In order to ensure consistency with the task and emotional conflict items, the conflict openness norms items were formed into a question by adding "if" or "is" in front of each statement. The 7-item scale included "If conflict arises do the people involved initiate steps to resolve it immediately", and "Is conflict avoided at all costs in your work group?" Four of the conflict norm items were reverse-scored.

Each item asked the respondent to indicate the extent to which conflict was present in the work group where -2 indicated "never" +2 indicated "always". The higher the scores on the task and emotional conflict scales the higher the presence of conflict within the work group. The higher the conflict openness norms score the more conflict was dealt with openly in the work group (Jehn, 1995).

5.4.2 Team Orientation

A strong team is one where interactions, communication patterns, levels of trust and participation enhance working toward the group's goals (Isabella and Waddock, 1994). Team orientation was measured with Isabella and Waddock's (1994) team orientation scale. The scale measures managers' perceptions of how employees work together as a team. The original scale used a 7-point Likert scale, however in this research a 5-point Likert scale was used in order to be consistent with other scales included in the survey,

where -2 indicated “very poorly” and +2 indicated “extremely well”. The 10 item scale which had an alpha of 0.91 asked respondents to rate how well the group performed and included the following items “Making decisions as a team”, “Listening to a variety of opinions” and “Allowing all members equal participation”. The word team was replaced with work group to ensure consistency with other questions in the survey. The higher the score the stronger the team orientation.

5.4.3 Communication

There are broadly two types of definitions of communication. The first sees communication as a “process by which A sends a message to B upon whom it has an effect. The second sees communication as a negotiation and exchange of meaning, in which messages, people-in-cultures and “reality” interact so as to enable meaning to be produced or understanding to occur” (O’Sullivan et al., 1983 p. 42). Since there is no comprehensive measure of communication for work groups the items were adapted from a number of different sources.

The communication scale was adapted from Downs and Hazen (1977), Quick (1992), Srnka and Ryan (1993), and O’Reilly and Roberts (1976). The Downs-Hazens measure of satisfaction in communication examines communication as a multi-dimensional construct involving both task and work group relationships (Crino and White, 1981). A number of items were based on this measure. The wording was modified to reflect consistency with other items used in the communication measure for example “extent to

which” was removed from the beginning of each item. Items include “The grapevine is active in my work group.”

One item “Group members recognize that non-verbal cues (tone and body language) are just as important as verbal cues” was adapted from Srnka and Ryan (1993) who examined active listening in work groups. Two items were adapted from O'Reilly and Roberts (1976) who examined the openness of communication within the work group (1976). Items include “It is easy to talk openly to all members of this group” and “It is easy to ask advice from any members of this group.”

The manager was asked to indicate how often certain communication practices occurred within their work group where -2 indicated “never” and +2 indicated “always”. Higher scores indicate higher levels of communication. Two items of the 9-item measure were reverse-scored. Cronbachs’ alpha was not available from previous research as the measure it is a new compilation.

5.4.4 Creativity

Creativity is defined as “the production of novel and useful ideas in any domain” (Amabile et al., 1996 p. 1155). Creativity was measured using Tierney, Farmer and Graen’s (1999) creativity scale. The scale assesses supervisor ratings of employee creativity and has an alpha of 0.95. The 9-item scale was modified to suit the needs of the proposed research. Instead of the items relating to specific employees, items related to the entire work group as the level of analysis is the work group, not the employee.

Originally a 6-point Likert scale was proposed however in this study a 5-point Likert scale was utilized in order to ensure consistency with other scales used in the questionnaire. In addition two of the items were excluded from the survey because they did not apply to the banking industry, these items are as follows “Identified opportunities for new products/processes and “Generated ideas revolutionary to our field.”

The final 7-item measure included the following items such as “Solved problems that had caused others difficulty” and “Served as a good role model for creativity”. The manager was asked to “indicate how often the statements characterize the work group” where –2 indicated “none” and +2 indicated “a lot”. Higher scores indicate higher levels of creativity.

Table 5.2 provides a summary of the constructs and measures used to assess the dependent variables.

Table 5.2: Organizational Outcome Measures

Dependent Variable Construct	Measure	Supporting Study	Cronbach α from supporting study
Task Conflict	4 items	Pelled 1999	0.78
Emotional Conflict	4 items	Pelled 1999	0.83
Conflict Openness Norms	7 items	Jehn 1995	0.74
Teamwork	9 items	Isabella & Waddock 1994	0.91
Creativity	7 items	Tierney, Farmer & Graen 1999	0.95 for original 9 items
Communication	9 items	N/A	N/A

5.5 Data Analysis Techniques

The purpose of the research was to assess the relationship between variables associated with organizational outcomes (task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity) and the independent variables (work group diversity, managers' Universal Diverse Orientation, and work group culture). The proposed model and research questions were tested using first bivariate correlation and then regression analysis. To examine the impact that each independent variable had separately on the 6 dependent variables, bivariate correlation analysis was used. To examine which independent variables were the best predictors of each outcome, regressions were first run to determine which independent variables were significantly related to each outcome. Then to determine the relative importance of each significant predictor, new equations were estimated using only the significant predictors and Pratt's importance measures were calculated for each predictor. Table 5.3 summarizes the research questions and the analytical strategy used to answer them. The specific analytic techniques are described in more detail below.

Table 5.3: Analytic Strategy for Testing Preliminary Effects

Research Question	Statistical Test
1. Does the heterogeneity of the work group affect task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity?	Bivariate Correlation
2. Does the manager's Universal Diverse Orientation affect task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity?	Bivariate Correlation
3. Does the work group culture affect task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity?	Bivariate Correlation
4. Which independent variables are the best predictors of task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity?	Multiple Regression and Pratt's Measure of Variable Importance

5.5.1 Correlation Analysis

Bivariate correlation is used to measure the size and direction of the relationship between two variables (Tabachnick and Fidell 2001, p. 54). The Pearson product-moment correlation coefficient, r , is the most frequently used measure of association (Tabachnick and Fidell 2001). Pearson r was used to measure the association between pairs of independent variables and dependent variables. The Pearson r ranges from -1.00 and $+1.00$ in size. A correlation of 0 represents no relationship between the dependent variable and independent variable. An r value of $+1.00$ or -1.00 indicates perfect predictability of one score when the other is known (Tabachnick and Fidell 2001, p. 54). Correlation analysis was used to determine the degree and direction of the relationship between the measures of task conflict, emotional conflict, conflict openness norms, team orientation, communication, creativity, work group diversity, managers' Universal Diverse Orientation, and work group culture.

5.5.2 Multiple Regression and Pratt's Measure of Variable Importance

Multiple regression was carried out for each dependent variable. Multiple regression is used to predict the score of the dependent variable(s) from scores on several independent variable(s) (Tabachnick and Fidell 2001 p. 18). The goal was to provide insight into the contribution of each independent variable to the six dependent variables.

Regressions were first run to determine which independent variables were significantly related to each outcome. Then to determine the relative importance of each significant predictor, new equations were estimated using only the significant predictors and Pratt's

importance measures were calculated for each predictor. The Pratt measure of variable importance was utilized, because it calculates the proportion of variance that each independent variable contributes to the dependent variable. The standardized Pratt measure d_j assigns “importance to a variable in proportion to the product of its standardized regression coefficient and its simple correlation with the response variable” (Thomas et al., 1998 p. 254). The Pratt importance score (d_j) is calculated as follows

$$d_j = \frac{\hat{\beta}_j \hat{\rho}_j}{R^2} \text{ where } j = 1 \dots p$$

$\hat{\rho}_j$ = Correlation between dependent variable and independent variable

$\hat{\beta}_j$ = Total standardized regression coefficient

R^2 = Proportion of the sample variance explained by the regression

5.6 Summary

A questionnaire assessing the 3 independent variables and 6 independent variables was distributed to the managers of 38 workgroups at 19 branches of a financial institution. Wherever possible, existing measures of the model variables were used; however, new measures had to be developed to assess work group culture and communication. Correlation analysis was used to assess the relationship between pairs of independent and dependent variables. Regression analysis and Pratt’s measure of variable importance were used to identify the most important predictors of each outcome.

CHAPTER 6: RESULTS

This chapter describes the results of the model testing study and the methods used to answer the research questions. The following sections provide a description of the sample, an assessment of the measures and an analysis of the relationships between the independent variables of work group diversity, managers' Universal Diverse Orientation and work group culture and the dependent variables: task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity.

6.1 The Data

All Ottawa area managers of the participating financial institution were asked to respond to the questionnaire. A total of 38 questionnaires were distributed; 33 questionnaires were completed and returned by mail, a response rate of 87%. This section describes the demographics of the respondents and the work groups they supervise.

Male respondents represent 30% of the sample, while females represent 70%. The sample was well educated with 79% having completed a college diploma, university degree or post-graduate degree. The average age of respondents was 37 years. Most respondents indicated that they were married or living with a significant other with one child. On average the respondents had been employed with the financial institution for 12.3 years, in their current position for 3.8 years and at their current branch for 3.7 years (see Table 6.1).

Table 6.1 Demographic Breakdown of Respondents

<u>Variable</u>		<u>Percentage of Respondents</u>
Gender	Male	30.3%
	Female	69.7%
Ethnic origin	White	97.0%
	Non-white	3.0%
Education	High school	3.0%
	Some college/University	18.2%
	College Diploma	24.2%
	University Degree	48.5%
	Post-Graduate	6.1%
Marital Status	Never married	15.2%
	Married or living with significant other	84.8%
		Mean
Age		37.2 years
Length of time with company		12.3 years
Length of time at branch		3.7 years
Length of time in current job		3.8 years
Number of children		1.3

Table 6.2 provides the demographic breakdown of the work groups. On average there were 11 employees in each work group, 70.5% female and 29.5% male. The majority of employees were between 20 and 39 years of age and had been with the company for less than four years. The work groups were fairly homogeneous with 74.2% white employees and 25.7% non-white employees.

Table 6.2: Demographic Breakdown of Work Groups

<u>Variable</u>		<u>Percentage of Employees</u>
Age	Employees under 20 years	1.3%
	Employees 20-29 years	52.7%
	Employees 30-39 years	29%
	Employees 40-49 years	13.2%
	Employees 50+ years	3.7%
Gender	Male employees	29.5%
	Female employees	70.5%
Length of service	0-2 years	46.8%
	2-4 years	29.9%
	4-6 years	11.9%
	6-8 years	1.8%
	8-10 years	3.9%
	10+ years	5.7%
Employment Status	Full time	48.1%
	Part time	46.4%
	Alternate Work Options	5.5%
Ethnicity	White	74.2%
	Non-white	25.7%

Appendix 7 provides Blau's heterogeneity index for each of the five demographic variables selected; age, gender, length of employment at branch, employment status and ethnicity. The index measures the degree to which there is dispersion of a particular attribute in a specified population (Blau, 1977). High scores on the index indicate heterogeneity, lower scores represent homogeneity (Smith et al., 1994). The mean heterogeneity score for each demographic variable was 0.49 for age (maximum heterogeneity of 0.80), 0.54 for length of employment at branch (maximum heterogeneity

of 0.83), 0.37 for gender (maximum heterogeneity of 0.50), 0.42 for employment status (maximum heterogeneity of 0.67) and 0.29 for ethnicity (maximum heterogeneity of 0.50).

6.2 Assessment of Measures

The following section presents an assessment of the measures used to analyze the model. Before the statistical analysis could be performed, the variables had to be assessed in order to determine their reliability. Constructs were measured at the work group level using a 5-point Likert scale. The Likert scale was recoded from -2 to +2 to 1 to 5 to enhance comparability of the data to other studies. To enhance reliability, some changes were made to the individual measures, as noted below. The last question in the survey asked respondents to “To identify issues, which still need to be addressed in their work group with respect to a diverse workforce?” In general responses were favourable and encouraging. See Appendix 8 for a summary of these comments.

6.2.1 Assessment of Dependent Variables

Table 6.3 provides a summary of the measures of the dependent variables. The last two columns provide a comparison of the Cronbach’s alpha from previously validated research and the present study.

Table 6.3: Dependent Variable Measures

Dependent Variable Construct	Measure	Cronbach α Previous Research	Cronbach α Model Testing Study
Task Conflict	4 items	0.78 Pelled 1999	0.86
Emotional Conflict	4 items	0.83 Pelled 1999	0.82
Conflict Openness Norms	5 items	0.74 Jehn 1995 <i>For original 7 items</i>	0.52
Teamwork	9 items	0.91 Isabella & Waddock 1994	0.88
Creativity	7 items	0.95 Tierney, Farmer & Graen 1999 <i>For original 9 items</i>	0.93
Communication	9 items	N/A	0.89

Overall results were encouraging and consistent with previous research. The Cronbach's alpha for task conflict, emotional conflict, teamwork, creativity and communication were all above the 0.80 recommended by Nunnally (1978) for standards of reliability.

However, the Cronbach alpha for conflict openness norms, measured using 7 items decreased from 0.74 in previous research to 0.25 in the model testing study for all 7 items. This surprising result prompted a review of the inter-item correlations and the relevance of each item to the overall concept of conflict openness norms and a reluctant revision of the measure.

Three conflict openness norms items had negative inter-item correlations (see Appendix 9). Removing all three items would have resulted in a Cronbach alpha of 0.57. One of these items (item M, "Are emotional displays (i.e. crying, yelling) accepted in your work group?") was deleted on the grounds that few people would endorse crying or yelling in a

professional environment. A second item (item K, "If conflict arises do the people involved initiate steps to resolve it immediately?") was deleted because it pertains to conflict resolution rather than how open the work group is towards conflict. However, the third item (item I, "Is conflict dealt with openly in your work group?") was retained since it is central to the concept of conflict openness norms. The final measure of conflict openness norms included 5 items with a Cronbach's alpha of 0.52. Since this is below the 0.80 that Nunnally (1978) suggests for measures used in model testing, results from this variable may be attenuated by unreliability.

Since no comprehensive measure of communication could be found in the previous research for work groups the items were adapted from a number of different sources. Results from the model testing study indicate that the 9-item communication measure had an alpha of 0.89 and that all items had significant inter-item correlations. Since the Cronbach's alpha was above the 0.80 suggested for the validation of new measures (Nunnally, 1978) no changes were made.

6.2.2 Assessment of Independent Variables

Work group diversity was measured using Blau's heterogeneity index. As this is a single item measure of dispersion, no assessment of its validity is possible. Validity assessments of the measure of Universal Diverse Orientation and the 4 work group culture scales are reported below.

Universal Diverse Orientation

The Cronbach's alpha for Universal Diverse Orientation in the model testing study was 0.85 compared to 0.89 from the previously validated research. Fortunately no changes to the measure were required as no changes can be made to the scale or the statements due to copyright restrictions.

Work Group Culture

As described in Chapter 4, phase I of this research involved the development of a diversity scale based upon Thomas and Ely (1996) and Dass and Parker's (1999) work group cultures. Scales were developed for each of the four work group cultures: resistance, discrimination and fairness, access and legitimacy and learning and effectiveness. Following pre-testing, some changes were made to the four scales to increase reliability.

It was expected that the alphas from the model testing survey would support the measurement development alphas. However, the model testing data presented an unexpected obstacle. Table 6.4 shows the number of items for each work group culture measure and the Cronbach's alpha for the measurement development and the model testing survey.

Table 6.4: Measurement Development and Model Testing Work Group Culture Alphas

Work Group Culture	Number of Items	Cronbach Alpha	
		Measurement Development	Model Testing
Resistance	6	0.81	0.52
Discrimination and Fairness	7*	0.53 for 5 items	0.46*
Access and Legitimacy	6	0.64	0.26
Learning and Effectiveness	7	0.80	0.45

*Two new items were proposed following the measurement development survey and were incorporated in the model testing survey.

There are three possible explanations for the decrease in alpha. First a ceiling effect exists in the data which can significantly attenuate correlations. The variance and range were low on all four-work group culture scales, leaving little room for conflicting ideas and perspectives. Second, although the model testing survey guaranteed anonymity, respondents may have answered in a socially desirable manner. Since the statements addressed a delicate work place issue, respondents may have feared retribution if they did not answer in what was perceived as the politically correct manner. This socially desirable responding may have introduced bias, which resulted in range restriction. Finally, the model testing survey had a small sample size of 33 respondents which was expected to result in low statistical power, compared to the measurement development which was comprised of 51 respondents. In addition the model testing sample was homogeneous in nature with only managers in the Ottawa branches of a financial institution area surveyed, compared to the measurement development study which surveyed respondents from a variety of organizations, job functions and levels. See Table 6.5 for the standard deviation and means of the work group culture scales for the model testing study and see Appendix 10 for the means of the work group culture scales for the measurement development study.

Table 6.5: Mean and Standard Deviation of the Work Group Culture Scales for the Model Testing Study

		Resistance	Discrimination and Fairness	Access and Legitimacy	Learning and Effectiveness
N	Valid	33	31	29	33
	Missing	0	2	4	0
Mean		9.73	23.81	15.38	31.06
Std. Deviation		2.362	3.961	2.161	2.51

The correlations between work group culture scales are also lower in the model testing study than the measurement development study. (See Table 6.6 for the correlations between the work group culture variables for the model testing study and Appendix 10 for the measurement development study.) There are at least three possible explanations: There is less variance in the model testing study. This can attenuate correlations – both between items within scales and between scales. Second, the sample size is small thus correlations that might be significant in a larger sample are not significant here. Finally, the lack of correlations suggests that the scales measure separate, unique paradigms as was expected. The only significant correlation in the model testing study is the negative relationship between resistance and learning and effectiveness which again is what should be expected – i.e. doing nothing is the opposite of effectively integrating diversity.

Table 6.6: Correlations between the Work Group Culture Scales for the Model Testing Study

		Resistance	Discrimination and Fairness	Access and Legitimacy	Learning and Effectiveness
Resistance	Pearson Correlation	1.000	.174	.312	-.455**
	Sig. (2-tailed)	.	.350	.100	.008
	N	33	31	29	33
Discrimination and Fairness	Pearson Correlation		1.000	.327	-.082
	Sig. (2-tailed)		.	.096	.660
	N		31	27	31
Access and Legitimacy	Pearson Correlation			1.000	-.263
	Sig. (2-tailed)			.	.168
	N			29	29
Learning and Effectiveness	Pearson Correlation				1.000
	Sig. (2-tailed)				.
	N				33

**correlation is significant at the 0.01 level (2-tailed)

One issue in measuring work group culture, as discussed in Chapter 4, was whether to treat work group culture as one variable or four. Thomas and Ely (1996) and Dass and Parker (1999) treat the 4 work group cultures as distinct, with organizations categorized as reflecting only one of the 4 cultures. The pattern of correlations in the model testing data support this hypothesized distinctiveness. However as Trice and Beyer (1993) point out, cultures “are not monolithic single sets of ideas, but rather incorporate contradictions, ambiguities, paradoxes and just plain confusion (Trice and Beyer, 1993 p. 8). This fuzziness is reflected in the work group culture and as a result can heighten the complexity of the work group’s functioning (Trice and Beyer, 1993). Thus it is possible that the work groups may simultaneously hold values reflecting different work group cultures.

The strategy devised to address this issue was to complete the analysis using both measurement approaches (work group culture as a single variable versus work group culture as measured by the 4 scales) to determine the impact these different measurement treatments might have on the results. The difficulty in using this strategy is that over 90% of the work groups were scored as representing a learning and effectiveness paradigm. The lack of variance when culture is measured this way, limits the usefulness of this variable. The dominance of the learning and effectiveness paradigm also diverges significantly from consultants’ estimates of the sophistication of most organizations’ diversity management cultures (Miller and Rowney 1999, Wilson, 1997) although financial institutions are generally considered to be at the forefront of diversity training. This result, is however, consistent with a social desirability bias. It is also worth noting

that a significant number of work groups 39% had high scores on more than one work group scale, indicating that conflicting attitudes within the work group was a common phenomenon. (See Appendix 11 for a description of the frequency of each of the work group culture scales for the model testing study.) Thus the work group culture measure was treated as 4 separate scales for the analysis of the model. Analysis completed treating the work group culture as a single variable (where each work group is coded according to its dominant paradigm) is available in Appendix 12.

6.3 Assessing Multicollinearity

Prior to completing multivariate analysis, the correlations between the predictors were examined for multicollinearity. Multicollinearity, moderate to high intercorrelations among the predictors, was examined using the correlation matrix. The correlations between the independent variables are shown in Table 6.7. The traditional multicollinearity cutoff is a correlation of 0.80; a correlation greater than 0.80 is believed to become a problem in terms of biasing the estimates. Through examination of the correlation matrix, no multicollinearity was found.

Table 6.7: Correlations between Independent Variables

		Heterogeneity Age	Heterogeneity Gender	Heterogeneity Length of Service at Branch	Heterogeneity Employment Status	Heterogeneity Ethnicity
Resistance	Pearson Correlation Sig. (2-tailed) N	-.236 .186 33	.040 .829 32	-.131 .466 33	-.127 .482 33	-.037 .840 33
Discrimination and Fairness	Pearson Correlation Sig. (2-tailed) N	-.088 .638 31	-.370* .044 30	.067 .722 31	-.295 .107 31	-.194 .297 31
Access and Legitimacy	Pearson Correlation Sig. (2-tailed) N	-.070 .719 29	.137 .488 28	.077 .693 29	-.499** .006 29	-.005 .980 29
Learning and Effectiveness	Pearson Correlation Sig. (2-tailed) N	.127 .482 33	.046 .803 32	.091 .616 33	.201 .261 33	-.095 .598 33
Universal Diverse Orientation	Pearson Correlation Sig. (2-tailed) N	-.038 .832 33	.141 .443 32	.104 .563 33	.091 .614 33	-.143 .429 33
Heterogeneity- Age	Pearson Correlation Sig. (2-tailed) N	1.000 .000 33	.061 .739 32	.231 .196 33	.193 .283 33	.043 .813 33
Heterogeneity- Gender	Pearson Correlation Sig. (2-tailed) N		1.000 .000 32	.175 .338 32	.006 .976 32	-.225 .215 32
Heterogeneity- Length of Employment at Branch	Pearson Correlation Sig. (2-tailed) N			1.000 .000 33	.192 .283 33	-.143 .427 33
Heterogeneity- Employment Status	Pearson Correlation Sig. (2-tailed) N				1.000 .000 33	-.188 .295 33
Heterogeneity- Ethnicity	Pearson Correlation Sig. (2-tailed) N					1.000 .000 33

**correlation is significant at the 0.01 level (2-tailed)

* correlation is significant at the 0.05 level (2-tailed)

**Table 6.7: Correlations between Independent Variables
(cont'd)**

		Resistance	Discrimination and Fairness	Access and Legitimacy	Learning and Effectiveness	Universal Diverse Orientation
Resistance	Pearson Correlation	1.000	.174	.312	-.455**	-.541**
	Sig. (2-tailed)	.	.350	.100	.008	.001
	N	33	31	29	33	33
Discrimination and Fairness	Pearson Correlation		1.000	.327	-.082	-.201
	Sig. (2-tailed)		.	.096	.660	.279
	N		31	27	31	31
Access and Legitimacy	Pearson Correlation			1.000	-.263	-.249
	Sig. (2-tailed)			.	.168	.193
	N			29	29	29
Learning and Effectiveness	Pearson Correlation				1.000	.267
	Sig. (2-tailed)				.	.134
	N				33	33
Universal Diverse Orientation	Pearson Correlation					1.000
	Sig. (2-tailed)					.
	N					33

6.4 Effects of the Independent Variables

The following section describes the analysis of the model testing study. Each hypothesis was examined at the 0.05 level using bivariate correlation analysis (see Table 6.13 for a summary of the hypotheses testing results). No adjustments were made for experiment wise error due to the exploratory nature of the model testing study, the small sample size and because the goal was to identify potentially relevant results rather than eliminating them. Hypotheses are not addressed sequentially, significant results are discussed first and then non-significant results are addressed.

6.4.1 The Effect of Work Group Culture

Hypothesis 3_G was “A work group culture of learning and effectiveness will be positively associated with emotional conflict.” Instead of a positive relationship between learning and effectiveness and emotional conflict a negative relationship was found (a correlation

of -0.385 and a significance of 0.027). See Table 6.8 for the correlations between the four work group cultures and the dependent variables. This finding suggests that as organizations become more strongly oriented toward learning and effectiveness, the level of emotional conflict goes down. In essence employees learn to value others and do not use social categories as a source of tension. In retrospect this relationship makes more sense, when diversity is managed effectively there should be less emotional conflict.

Marginal support was found (at the 0.10 level) for hypothesis 3_D “A work group culture of discrimination and fairness will be negatively associated with conflict openness norms” (a correlation of -0.314 and a significance of 0.091). This result suggests that as work groups foster assimilation, employees become less open about conflict.

There was no support for hypotheses 3_A, 3_B, 6_A, 9_A and 12_A, that a work group culture of resistance would suppress task and emotional conflict and decrease conflict openness norms, team orientation, communication, and creativity. There was no support for hypotheses 3_C, 6_B, 9_B and 12_B, that a work group culture of discrimination and fairness would suppress task and emotional conflict, increase team orientation and decrease communication, and creativity. There was no support for hypotheses 3_E, 3_F, 6_C, 9_C and 12_C, that a work group culture of access and legitimacy would be positively associated with task and emotional conflict, promote conflict openness and increase team orientation, communication, and creativity. Finally there was no support for hypotheses 3_H, 6_D, 9_D and 12_D, that a work group culture of learning and effectiveness would promote conflict openness and increase team orientation, communication, and creativity.

**Table 6.8: Correlation with the Work Group Culture Scales
and the Dependent Variables**

		Task Conflict	Emotional Conflict	Conflict Openness Norms	Team Orientat- ion	Comm- unication	Creativity
Resistance	Pearson Correlation	-.120	.041	-.056	-.249	.021	-.023
	Sig. (2-tailed)	.504	.823	.761	.163	.911	.901
	N	33	33	32	33	32	32
Discrimination and Fairness	Pearson Correlation	.151	-.086	-.314	.090	.016	.160
	Sig. (2-tailed)	.417	.645	.091	.632	.930	.399
	N	31	31	30	31	31	30
Access and Legitimacy	Pearson Correlation	.029	.107	-.136	-.151	-.217	.073
	Sig. (2-tailed)	.883	.581	.490	.433	.267	.708
	N	29	29	28	29	28	29
Learning and Effectiveness	Pearson Correlation	.044	-.385*	.013	.259	.114	.000
	Sig. (2-tailed)	.807	.027	.946	.146	.536	1.000
	N	33	33	32	33	32	32

*correlation is significant at the 0.05 level (2-tailed)

6.4.2 The Effect of Managers' Universal Diverse Orientation

Correlation analysis supported Hypothesis 5, "the higher the manager's Universal Diverse Orientation the higher the team orientation" (a correlation of 0.450 and a significance of 0.009). See Table 6.9 for correlations between Universal Diverse Orientation and the dependent variables. This finding suggests that as managers become increasingly aware and accepting of the similarities and differences between people the work group also learns how to effectively function as a collective unit.

There was no support for Hypotheses 2_A, 2_B, 8 and 11, that Universal Diverse Orientation would lower task and emotional conflict, promote conflict openness norms and increase communication, and creativity.

Table 6.9: Correlation with Managers' Universal Diverse Orientation and the Dependent Variables

		Task Conflict	Emotional Conflict	Conflict Openness Norms	Team Orientation	Communication	Creativity
Universal	Pearson Correlation	.045	-.177	.210	.450**	.238	.265
Diverse	Sig. (2-tailed)	.805	.324	.248	.009	.190	.142
Orientation	N	33	33	32	33	32	32

**correlation is significant at the 0.01 level (two-tailed)

6.4.3 The Effect of Work Group Diversity

The relationships between work group diversity and the dependent variables were opposite to those predicted for hypotheses 1_B, 4 and 7 when employment status diversity was considered. Employment status diversity was found to increase conflict openness norms (a correlation of 0.425 and a significance of 0.015), team orientation (a correlation of 0.370 and a significance of 0.034), and communication (a correlation of 0.457 and a significance of 0.009). Results contradicting the hypotheses were also found for hypotheses 1_A and 10. A work group diverse in age was shown to decrease emotional conflict (a correlation of -0.379 and a significance of 0.030), and ethnic diversity was shown to decrease task conflict (a correlation of -0.442 and a significance of 0.010) and creativity (a correlation of -0.372 and a significance of 0.036). See Table 6.10 for correlations between work group diversity and the dependent variables. These findings suggest that different types of diversity can influence organizational outcomes in different ways.

Marginal support was found (at the 0.10) level for hypothesis 1_B "The greater the ethnic diversity within the work group the less likely that conflict norms will promote openness"

(a correlation of -0.318 and a significance of 0.076) and hypothesis 4 “The greater the ethnic diversity within the work group the lower the team orientation” (a correlation of -0.323 and a significance of 0.067). Hypothesis 7 “The greater the age diversity within the work group the lower the communication” was marginally contradicted at the 0.10 level, (a correlation of 0.316 and a significance of 0.078).

Table 6.10: Correlation with Work Group Diversity and the Dependent Variables

		Task Conflict	Emotional Conflict	Conflict Openness Norms	Team Orientat- ion	Comm- uication	Creativity
Heterogeneity Age	Pearson Correlation	-.269	-.379*	-.085	.105	.316	.053
	Sig. (2-tailed)	.130	.030	.643	.562	.078	.772
	N	33	33	32	33	32	32
Heterogeneity Gender	Pearson Correlation	.233	.270	.225	-.054	-.104	-.180
	Sig. (2-tailed)	.200	.135	.223	.770	.576	.334
	N	32	32	31	32	31	31
Heterogeneity Length of Employment at Branch	Pearson Correlation	-.068	-.174	.053	.102	.048	-.064
	Sig. (2-tailed)	.707	.333	.774	.572	.793	.727
	N	33	33	32	33	32	32
Heterogeneity Employment Status	Pearson Correlation	.037	-.257	.425*	.370*	.457**	.207
	Sig. (2-tailed)	.839	.149	.015	.034	.009	.256
	N	33	33	32	33	32	32
Heterogeneity Ethnicity	Pearson Correlation	-.442*	.042	-.318	-.323	-.179	-.372*
	Sig. (2-tailed)	.010	.817	.076	.067	.327	.036
	N	33	33	32	33	32	32

* correlation is significant at the 0.05 level (2-tailed)

**correlation is significant at the 0.01 level (2-tailed)

6.5 Predicting the Dependent Variables

Thus far, we have tested the model by examining the impact of each predictor on the dependent variables. It is also useful to examine, for each dependent variable, which independent variables are most predictive of these outcomes. To examine which independent variables were the best predictors of each outcome, regressions were first run to determine which independent variables were significantly related to each outcome. Then to determine the relative importance of each significant predictor, new equations

were estimated using only the significant predictors. Lastly, Pratt's importance measure was calculated for each predictor. The Pratt measure of variable importance was utilized, because it calculates the proportion of variance explained that each independent variable contributes to the dependent variable. The standardized Pratt measure d_j assigns "importance to a variable in proportion to the product of its standardized regression coefficient and its simple correlation with the response variable" (Thomas et al., 1998 p. 254).

Using multiple regression only two of the dependent variables, emotional conflict and communication were found to be significantly predicted by the independent variables. The next section will examine the relative importance of the significant independent variables.

Predicting Emotional Conflict

Emotional conflict was found to be predicted by a learning and effectiveness work group culture and gender diversity. The most important variable was the learning and effectiveness work group culture with an importance rating of 0.65. Gender diversity had a relative importance of 0.31 (see Table 6.11 for the complete standardized Pratt measure for emotional conflict). Gender diversity increased emotional conflict while a learning and effectiveness work group culture reduced emotional conflict. These results support previous research which found that gender is related to interpersonal tension and lower levels of friendliness (Riordan and Shore, 1997).

Table 6.11: Emotional Conflict Predictors

Independent Variable	Correlation between DV and IV	Total Standardized Regression Coefficient	Variable Importance
Learning and Effectiveness	-.385	-.422	0.65
Gender Diversity	.270	.289	0.31

$R^2 = .250$

Predicting Communication

Communication was found to be predicted by a work group culture of resistance and a manager's positive orientation toward diversity. The most important variable was manager's Universal Diverse Orientation with an importance rating of 0.95. The work group culture of resistance had an importance rating of 0.05 (see Table 6.12 for the complete standardized Pratt measure for communication).

The low importance rating of 0.05 for resistance indicates that it is suppressor variable (Thomas et al., 1998). In essence the resistance work group culture "suppresses some variance in the other independent variables that is irrelevant to the prediction of the dependent variable," (Tabachnick and Fidell, 1983 p.116) communication. This is also indicated by the smaller value of the simple correlation between the resistance work group culture and communication (0.021) compared to the standardized regression weight for the resistance work group culture (0.238) (Tabachnick and Fidell, 1983).

Table 6.12: Communication Predictors

Independent Variable	Correlation between DV and IV	Total Standardized Regression Coefficient	Variable Importance
Resistance	.021	.211	0.05
Universal Diverse Orientation	.238	.352	0.95

$R^2 = .088$

Only two of the dependent variables emotional conflict and communication were shown to be predicted by selected independent variables. While this result is not highly significant it does support the notation that work group diversity can impact some organizational outcomes.

6.6 Summary

The analysis revealed that work force diversity does impact variables related to organizational outcomes. The results were often opposite to what was hypothesized. A work group culture of learning and effectiveness decreased emotional conflict. Universal Diverse Orientation increased team orientation and communication. Age diversity decreased emotional conflict, gender diversity increased emotional conflict, employment status diversity increased conflict openness norms, team orientation, and communication and ethnic diversity decreased task conflict and creativity. Table 6.13 presents the hypotheses testing results. The regression analysis revealed that only two of the dependent variables, emotional conflict and communication were significantly predicted by the independent variables. While these results are suggestive, they should be interpreted with caution as the data is not that strong due to the small sample size and relative homogeneity of the groups studied. The following chapter will discuss the results of the hypothesis testing in more detail along with some important implications.

**Table 6.13: Summary of Hypothesis Testing
Impact of the Independent Variables**

Work Group Culture

Resistance

Hypotheses		Results
3 _A	A work group culture of resistance will suppress task and emotional conflict.	-
3 _B	A work group culture of resistance will be negatively associated with conflict openness norms.	-
6 _A	A work group culture of resistance will be negatively associated with team orientation.	-
9 _A	A work group culture of resistance will be negatively associated with communication.	-
12 _A	A work group culture of resistance will be negatively associated with creativity.	-

Discrimination and Fairness

Hypotheses		Results
3 _C	A work group culture of discrimination and fairness will suppress task and emotional conflict.	-
3 _D	A work group culture of discrimination and fairness will be negatively associated with conflict openness norms.	~
6 _B	A work group culture of discrimination and fairness will be positively associated with team orientation.	-
9 _B	A work group culture of discrimination and fairness will be negatively associated with communication.	-
12 _B	A work group culture of discrimination and fairness will be negatively associated with creativity.	-

Note: The hypothesis was rejected if the correlations were not significant at the $p \leq 0.05$ level. Marginal support is indicated at the $p \leq 0.10$ level.

✓ Supported

~ Marginally Supported

X Reverse Found

X~ Marginally Unsupported

— Not Significant

Access and Legitimacy

Hypotheses		Results
3 _E	A work group culture of access and legitimacy will be positively associated with task and emotional conflict.	-
3 _F	A work group culture of access and legitimacy will be positively associated with conflict openness norms.	-
6 _C	A work group culture of access and legitimacy will be positively associated with team orientation.	-
9 _C	A work group culture of access and legitimacy will be positively associated with communication.	-
12 _C	A work group culture of access and legitimacy will be positively associated with creativity.	-

Learning and Effectiveness

Hypotheses		Results	
3 _G	A work group culture of learning and effectiveness will be positively associated with task and emotional conflict.	Task -	Emotional X
3 _H	A work group culture of learning and effectiveness will be positively associated with conflict openness norms.	-	
6 _D	A work group culture of learning and effectiveness will be positively associated with team orientation.	-	
9 _D	A work group culture of learning and effectiveness will be positively associated with communication.	-	
12 _D	A work group culture of learning and effectiveness will be positively associated with creativity.	-	

Universal Diverse Orientation

Hypotheses		Results
2 _A	The higher the manager's Universal Diverse Orientation, the lower the amount of task and emotional conflict.	-
2 _B	The higher the manager's Universal Diverse Orientation, the more likely that conflict norms will promote openness.	-
5	The higher the manager's Universal Diverse Orientation, the higher the team orientation.	✓
8	The higher the manager's Universal Diverse Orientation, the higher the communication.	✓
11	The higher the manager's Universal Diverse Orientation, the higher the creativity.	-

Note: The hypothesis was rejected if the correlations were not significant at the $p \leq 0.05$ level. Marginal support is indicated at the $p \leq 0.10$ level.

✓ **Supported**

X **Reverse Found**

— **Not Significant**

~ **Marginally Supported**

X~ **Marginally Unsupported**

Work Group Diversity

Hypotheses		Results	
1_A	The greater the diversity within the work group, the higher the amount of task and emotional conflict. Age Diversity Gender Diversity Length of Service Diversity Employment Status Diversity Ethnic Diversity	Task - - - - X	Emotional X √ - - -
1_B	The greater the diversity within the work group, the less likely that conflict norms will promote openness. Age Diversity Gender Diversity Length of Service Diversity Employment Status Diversity Ethnic Diversity		- - - X ~
4	The greater the diversity within the work group, the lower the team orientation. Age Diversity Gender Diversity Length of Service Diversity Employment Status Diversity Ethnic Diversity		- - - X ~
7	The greater the diversity within the work group, the lower the communication. Age Diversity Gender Diversity Length of Service Diversity Employment Status Diversity Ethnic Diversity		X~ - - X -
10	The greater the diversity within the work group, the higher the creativity. Age Diversity Gender Diversity Length of Service Diversity Employment Status Diversity Ethnic Diversity		- - - - X

Note: The hypothesis was rejected if the correlations were not significant at the $p \leq 0.05$ level. Marginal support is indicated at the $p \leq 0.10$ level.

√ **Supported**

~ **Marginally Supported**

X **Reverse Found**

X~ **Marginally unsupported**

— **Not Significant**

CHAPTER 7: DISCUSSION

The model offered in this study predicted that work group diversity, managers' Universal Diverse Orientation and work group culture would impact task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity. It was expected that work group diversity would increase task conflict, emotional conflict and creativity, and decrease conflict openness norms, team orientation, and communication. Managers' Universal Diverse Orientation was expected to promote conflict openness norms, team orientation, communication, and creativity and decrease task conflict and emotional conflict. Finally work group culture was also expected to impact the dependent variables by increasing task conflict, emotional conflict and creativity, but decreasing conflict openness norms, team orientation and communication. It was the hope that this research would provide a more comprehensive understanding of the link between diversity, how it is handled and specific organizational outcomes.

This chapter discusses the main findings of the study and provides some explanations for why some hypotheses were rejected. The discussion is presented according to the three independent constructs in the research framework: work group diversity, managers' Universal Diverse Orientation and work group culture. A review of the results in terms of the hypotheses will be presented. Although the data is not that strong, possible explanations for findings have been explored to aid future research efforts. A summary of the findings, limitations and benefits will be provided and finally implications for future research will be considered.

7.1 Work Group Diversity

The following section summarizes the hypotheses based on work group diversity. The diversity variables examined in this study were age, gender, length of employment at branch, employment status and ethnicity. Each hypothesis is presented in a table followed by a discussion of the results. Given the relative homogeneity of the work groups studied, the results should be interpreted with caution.

Task and Emotional Conflict

Hypothesis	Results
The greater the diversity within the work group, the higher the amount of task and emotional conflict.	Age diversity decreased emotional conflict. Ethnic diversity decreased task conflict. Gender diversity increased emotional conflict.

Earlier research suggested that task and emotional conflict are driven by multiple and distinctive facets of diversity (Pelled et al., 1999). As a result it was expected that age, gender, length of employment at branch, employment status, and ethnicity would have differing relationships with task and emotional conflict. Only three of the diversity variables examined, age, gender and ethnic diversity, shaped task and emotional conflict. One possible explanation for a general absence of correlation between the demographic diversity variables and task and emotional conflict is the relatively homogeneous nature of the work groups included in the study. Research has shown that task and emotional conflict are more likely to emerge as the diversity within the work group increases (Pelled et al., 1999). Since the work groups were fairly homogeneous it is not surprising that task and emotional conflict was low. A range restriction, such as observed on the

diversity variables in this study, can attenuate observed correlations thus leading to non-significant results.

Two of the three diversity variables that did have significant correlations with conflict (age diversity with emotional conflict and ethnic diversity with task conflict) decreased conflict when they were expected to increase conflict. These findings may be the result of the relative homogeneity of the work groups studied. When diversity is at a minimum, faultlines which intensify conflict are either absent or unlikely (Lau and Murnighan, 1998). Faultlines divide groups' members on the basis of one or more attributes. Faultlines become stronger as more attributes align themselves in the same way (Lau and Murnighan 1998, p. 325). With relative homogeneity in the work groups there is less room for faultlines and sub-groups to form. As a result group members are not afforded the opportunity to restrict group cohesion and social interactions between the sub-groups (Lau and Murnighan, 1998), an element which often serves as a pre-cursor for emotional conflict (Jehn, 1995).

Age diversity decreased emotional conflict (a correlation of -0.379 and a significance of 0.030). Age diversity measured by Blau's heterogeneity index was 0.49 (compared to a maximum of 0.80), indicating relative homogeneity within the work groups (83% of employees were between 20 and 39). Blau's heterogeneity index is a function of both the dispersion of members of the population across sub-groups and the number of sub-groups. The fewer the sub-groups, the lower the maximum heterogeneity index. For instance, when there are only 2 sub-groups as in the case of gender, the maximum

heterogeneity index, which occurs when the population is split evenly across the two sub-groups, is 0.50. In addition to gender, ethnicity was also represented by only 2 sub-groups (white versus non-white). Employment status was represented by 3 sub-groups (full-time, part-time and alternative work options) which implies a maximum heterogeneity of 0.67. Age was represented by 5 sub-groups with a maximum heterogeneity index of 0.80. Length of service was represented by 6 sub-groups with a maximum heterogeneity index of 0.83. This homogeneity prevents employees from being placed into cognitive categories, a stimulant of emotional conflict (Pelled, 1996). Thus the age homogeneity of the groups may have served to suppress emotional conflict.

Ethnic diversity had a negative impact on task conflict (a correlation of -0.442 and a significance of 0.010). This contradicts previous research, which found that diversity in race does not affect task conflict (Pelled et al., 1999). However, in the current study ethnic diversity measured by Blau's heterogeneity index was 0.29, (compared to a maximum of 0.50) again indicating relative homogeneity within the work group (74% of employees were white). This relative homogeneity of ethnicity, like homogeneity of age restricts the formation of faultlines and the resulting acceleration of conflict (Lau and Murnighan, 1998).

Gender diversity was also related to emotional conflict. Although the correlation was not large enough to reach significance in this small sample, (a correlation of 0.270 and a significance of 0.135) the regression results indicated a positive relationship between gender diversity and emotional conflict (a beta of .289). This result is consistent with

other research indicating that gender differences can be a source of conflict in organizations (Caudron, 1995).

Conflict Openness Norms

Hypothesis	Results
The greater the diversity within the work group, the less likely that conflict norms will promote openness.	Employment status diversity promotes conflict openness norms.

In contrast to the original hypothesis, results revealed that employment status diversity promoted conflict openness norms (a correlation of 0.425 and a significance of 0.015). One explanation for this is that on average most work groups had an equal number of full-time and part-time employees (48% full-time, 46% part-time; Blau's heterogeneity index for employment status was 0.49). Since full-time and part-time employees typically work different shifts there is little face-to-face contact between members of the different groups. In this environment, in-groups and out-groups may develop and employees may express their complaints, particularly about the out-group, more openly.

Team Orientation

Hypothesis	Results
The greater the diversity within the work group, the lower the team orientation.	Employment Status diversity increased team orientation.

In contrast to the original hypothesis, results of the study revealed that employment status diversity increased team orientation. One possible explanation for the positive relationship between employment status diversity and team orientation (a correlation of 0.370 and a significance of 0.034) is a faultline separating part-time and full-time employees. People tend to converge towards others who share the same experiences as

themselves. Therefore it is logical that two sub-groups would form separating part-time and full-time employees. Part-time employees are often under 30 and attend a post-secondary institution. Full-time employees are typically older, and are often married with children. When multiple characteristics align in a similar manner (employment status, age, life cycle stage), the resulting faultline is particularly strong. In-group bonds are strengthened and out-groups relationships are weakened. The resulting in-group, out-group dynamics will often increase the feeling of team cohesiveness within each sub-group (Lau and Murnighan, 1998).

Communication

Hypothesis	Results
The greater the diversity within the work group, the lower the communication.	Employment Status diversity increased communication.

Work group diversity was expected to have a negative impact on communication. Results of the study revealed that employment status diversity instead increased communication (a correlation of 0.457 and a significance of 0.009). One explanation for the finding between employment status diversity and communication is the formation of a faultline between part-time and full-time employees. When a strong in-group/out-group dynamic exists, cohesiveness within each sub-group is strengthened. This cohesiveness may lead to increased in-group communication

Creativity

Hypothesis	Results
The greater the diversity within the work group, the higher the creativity.	Ethnic diversity decreased creativity.

Creativity has often been a leading selling point for work force diversity (Wheeler, 1995; Gardenswartz and Rowe, 2000). Past research suggests that diversity increases creativity (Lau and Murnighan, 1998) due to the variety of ideas and perspectives brought to the work group. However, the results of this study support the conclusion that diversity, particularly ethnic diversity, can impede creativity (a correlation of -0.372 and a significance of 0.036). This is consistent with the relationship between ethnic diversity and task conflict. Creativity is dependent on a wealth of different ideas which are reflected in task conflict. If ethnic diversity suppresses task conflict, creativity will also be suppressed. These results should be interpreted with caution, however, due to the small sample size and the relative homogeneity of the groups studied.

7.1.1 Summary of the Effects of Work Group Diversity

The results suggest that work group diversity is not a strong determinant of organizational outcomes. The data analyses reveals that age diversity, gender diversity, and ethnic diversity impacted task conflict, emotional conflict, and creativity. Employment status diversity had an impact on conflict openness norms, team orientation and communication. The following figure summarizes the relationships between work group diversity and organizational outcomes.

Figure V: Summary of the Impact of Work Group Diversity on Organizational Outcomes

*numbers on line indicate significance levels

7.2 Managers' Universal Diverse Orientation

The following section summarizes the hypotheses based on managers' Universal Diverse Orientation. Each hypothesis is presented in a table followed by a discussion of the results.

Task and Emotional Conflict, Conflict Openness Norms, and Creativity

Hypothesis	Results
The higher the manager's Universal Diverse Orientation, the lower the amount of task and emotional conflict	No relationship between managers' Universal Diverse Orientation and task and emotional conflict.
The higher the manager's Universal Diverse Orientation, the more likely that conflict norms will promote an openness to conflict.	No relationship between managers' Universal Diverse Orientation and conflict openness norms.
The higher the manager's Universal Diverse Orientation, the higher the creativity.	No relationship between managers' Universal Diverse Orientation and creativity.

The results revealed that there was no relationship between managers' Universal Diverse Orientation and task conflict, emotional conflict, conflict openness norms, and creativity. One explanation for the absence of any correlation between Universal Diverse Orientation and these dependent variables is that Universal Diverse Orientation examines managers' awareness of the similarities and differences between people (Miville et al., 1999) which may not translate into managerial action and thus work group outcomes.

Another explanation for the general lack of findings between Universal Diverse Orientation and these dependent variables is that when work groups are relatively homogeneous, the manager's orientation toward diversity may simply not matter. If

there is no diversity in the work group, the manager's awareness of diversity will be irrelevant to the group's functioning.

The results revealed that there was no relationship between managers' Universal Diverse Orientation and conflict openness norms. In addition to the explanations offered above, one explanation for the absence of correlation here is the low reliability of the conflict openness norms measure. The results also revealed that there was no relationship between managers' Universal Diverse Orientation and communication. This result is surprising as it was expected that an awareness of the similarities and differences between people would increase communication and strengthen communication channels. It is possible that communication within the work groups is dictated by other factors in the work environment (such as work requirements) rather than the manager's orientation toward diversity.

Finally results revealed that there was no relationship between managers' Universal Diverse Orientation and creativity. In addition to the explanations offered above, one explanation for this could lie in the type of industry studied. The banking industry has stringent policies and procedures that must be followed, leaving relatively little room for creativity and innovation.

Team Orientation

Hypothesis	Results
The higher the manager's Universal Diverse Orientation, the higher the team orientation.	The higher the manager's Universal Diverse Orientation, the higher the team orientation.

One explanation for the positive impact of Universal Diverse Orientation on team orientation (a correlation of 0.450 and a significance of 0.009) is the awareness of others that both variables imply. Universal Diverse Orientation signifies an awareness of the similarities and differences between people. Team orientation highlights an awareness of working with various people. The more sensitive the manager is towards her/his people, the more likely the manager is to foster a team orientation.

Communication

Hypothesis	Results
The higher the manager's Universal Diverse Orientation, the higher the communication.	The higher the manager's Universal Diverse Orientation, the higher the communication

Although the correlation did not reach significance in this small sample, Universal Diverse Orientation did have a positive impact on communication (a beta of 0.352). The reason that Universal Diverse Orientation affected communication in these relatively homogeneous work groups may be the same reason it affects team orientation; the more sensitive the manager is to her or his subordinates, the more likely it is that subordinates will communicate openly with the manager. The strong team orientation that goes along with Universal Diverse Orientation will also foster communication between subordinates.

7.2.1 Summary of the Effects of Managers' Universal Diverse Orientation

The results suggest that Universal Diverse Orientation is a determinant of team orientation and communication but has no relationship to task conflict, emotional conflict, conflict openness norms, and creativity. It should be noted, however, that this may be an artifact of the relative homogeneous groups employed in the study. The following figure summarizes the relationships between Universal Diverse Orientation and organizational outcomes.

Figure VI: Summary of the Impact of Managers' Universal Diverse Orientation on Organizational Outcomes

* numbers on line indicate significance levels

7.3 Work Group Culture

The following section summarizes the hypotheses based on work group culture. Each hypothesis is presented in a table followed by a discussion of the results. The study examined the work group culture measure as four separate scales. Results based on treating the work group culture as a single scale may be found in Appendix 12.

Conflict Openness Norms, Team Orientation, Communication and Creativity

Hypothesis	Results
A work group culture of resistance and a work group culture of discrimination and fairness will be negatively associated with conflict openness norms. A work group culture of access and legitimacy and a work group culture of learning and effectiveness will be positively associated with conflict openness norms.	No relationship between work group culture and conflict openness norms.
A work group culture of resistance will be negatively associated with team orientation. A work group culture of discrimination and fairness, a work group culture of access and legitimacy and a work group culture of learning and effectiveness will be positively associated with team orientation.	No relationship between work group culture and team orientation.
A work group culture of resistance and a work group culture of discrimination and fairness will be negatively associated with communication. A work group culture of access and legitimacy and a work group culture of learning and effectiveness will be positively associated with communication.	No relationship between work group culture and communication. Although a resistance work group culture enhanced statistical prediction of communication, the results indicated that it is a suppressor variable. As illustrated by the bivariate correlation, the two are virtually unrelated.
A work group culture of resistance and a work group culture of discrimination and fairness will be negatively associated with creativity. A work group culture of access and legitimacy and a work group culture of learning and effectiveness will be positively associated with creativity.	No relationship between work group culture and creativity.

The lack of correlations does not support the findings of Thomas and Ely (1996) and Dass and Parker (1999) who state that each work group culture has its own approach to organizational development and group cohesion. Where the discrimination and fairness work group culture emphasizes assimilation, the access and legitimacy work group culture emphasizes differentiation and the learning and effectiveness work group culture emphasizes integration.

One explanation for the relative lack of findings is that when work groups are relatively homogeneous, the work group's orientation toward diversity may simply not matter. If there is little or no diversity in the work group, the groups values around diversity will not affect behaviour.

Another explanation for the lack of relationship between work group culture and task conflict, conflict openness norms, team orientation, communication, and creativity is that the work group culture measure was restricted to a narrow range. This minimal range and variance can strongly attenuate relationships thus resulting in null findings.

Task and Emotional Conflict

Hypothesis	Results
<p>A work group culture of resistance and a work group culture of discrimination and fairness will suppress task and emotional conflict.</p> <p>A work group culture of access and legitimacy and a work group culture of learning and effectiveness will be positively associated with task and emotional conflict.</p>	<p>A work group culture of learning and effectiveness decreased emotional conflict.</p>

Results revealed that the work group culture of learning and effectiveness was negatively associated with emotional conflict (a correlation of -0.385 and a significance of 0.027). This result was in the opposite direction of that originally proposed. On reflection this result makes sense since a learning and effectiveness work group culture emphasizes integration and treating all employees with respect. This should reduce social categorization and thus emotional conflict.

7.3.1 Summary of the Effects of Work Group Culture

The only work group culture which affected outcomes was learning and effectiveness. A work group culture of learning and effectiveness reduced emotional conflict. These results suggest that work group culture does not have as significant an effect on outcomes as Thomas and Ely (1996) and Dass and Parker (1999) predicted. This may be an artifact of the relatively homogeneous work groups included in this study. The following figure summarizes the relationship between work group culture and organizational outcomes.

Figure VII: Summary of the Impact of Work Group Culture on Organizational Outcomes

* numbers on line indicate significance levels

7.4 Summary of Results

The data analyses revealed that age diversity decreased emotional conflict, ethnic diversity decreased task conflict and creativity, gender diversity increased emotional conflict while employment status diversity increased team orientation, communication, and conflict openness norms. Managers' Universal Diverse Orientation increased team orientation and communication and a learning and effectiveness work group culture decreased emotional conflict.

7.5 Implications

The study examined work group diversity and variables related to organizational outcomes. The results of this study have potential implications for diverse work groups. Although there were fewer significant relationships in the data than originally proposed, there are some findings that provide insight into the challenges and opportunities that work group diversity affords.

A complicated picture emerged with different facets of work group diversity having different associations with the dependent variables. This research suggests that work group diversity does impact task conflict, emotional conflict, conflict openness norms, team orientation, communication, and creativity, although not as strongly as originally proposed. The variable which was related to the most dependent variables was employment status diversity which affected conflict openness norms, team orientation and communication. These results probably reflect a faultline separating part-time and full-time employees into strongly delineated sub-groups thus enhancing communication and team orientation within the sub-groups and the openness of conflict between the two groups.

In general the relationship between managers' Universal Diverse Orientation and work group culture did not affect the variables related to organizational outcomes, with the exception of Universal Diverse Orientation which increased team orientation and communication and a work group culture of learning and effectiveness which decreased emotional conflict.

These null results can largely be attributed to the relatively homogeneous nature of the work groups and the lack of opportunity to implement diversity initiatives and practices.

7.6 Limitations

All research runs into limitations and unexpected obstacles. The main limitation of this study was the sample size. Due to the constraints set by the financial institution a larger sample was not feasible. Although the response rate was high (87%), the sample consisted of only 33 work groups. The small sample size resulted in low statistical power; perhaps allowing some significant results to go undetected.

Another limitation was the work group culture measure. Results from the measurement development were promising, unfortunately this was not supported by the model testing data. Although the model testing survey guaranteed anonymity, it is believed that respondents answered with a degree of social desirability bias. The statements addressed a delicate work place issue. Respondents may have feared retribution if they had not answered in what was perceived as the politically correct manner.

Another limitation of this research was the conflict openness norms measure. Conflict openness norms were measured with a scale based on Cosier and Dalton's (1990) Openness Scale of the Decision Conflict and Cooperation Questionnaire which had an alpha of 0.74 in their research. Despite some adjustments to enhance reliability, the final measure of conflict openness norms had a Cronbach alpha of only 0.52. This presents a limitation in terms of the interpretability of the results regarding conflict openness norms.

Most of the survey responses required that the manager answer from the point of view of the work group. Although the manager may be in the best position to assess the overall culture and practices of the work group, personal viewpoints may overshadow the group's viewpoint, which may distort results. Also the manager may not have a full and complete understanding of how the work group feels about the issues in question.

7.7 Research Benefits and Suggestions for Future Research

This research provided some evidence about the impact of diversity on organizational outcomes. Work group diversity did impact the dependent variables. Specifically, age diversity decreased emotional conflict, gender diversity increased emotional conflict, ethnic diversity decreased task conflict and creativity while employment status diversity increased team orientation, communication, and conflict openness norms. One lesson to be drawn from these results is that different facets of diversity may have different results. With respect to managing diversity, managers' Universal Diverse Orientation increased team orientation and communication while a work group culture of learning and effectiveness decreased emotional conflict.

While there were far fewer significant relationships between diversity management variables and outcomes, the results are worth noting. The fact that any significant results were detected in such a small sample of relatively homogeneous work groups suggests that further research on managers attitudes toward diversity and work group cultures around diversity is warranted.

A major contribution of this research was the development of new measures of work group culture based on Thomas and Ely (1996) and Dass and Parker's (1999) diversity paradigms: resistance, discrimination and fairness, access and legitimacy, and learning and effectiveness. While further refinements of this measure are warranted, this data will help future researchers to better measure and understand work group cultures.

The communication measure, which was adapted from a variety of studies and research, is another contribution of this study (Cronbach alpha of 0.88). Testing this measure with other samples and conducting in-depth validity analysis may support its further use as a measure of communication within work groups.

The exploration of the relationship between managers' Universal Diverse Orientation and outcomes was another contribution of the research. Universal Diverse Orientation is a relatively new concept and its implications are not yet fully understood. Although team orientation and communication were the only dependent variables which were affected by managers' Universal Diverse Orientation it may play a vital role in predicting organizational outcomes in more diverse populations.

Although the results were not as strong as expected they do provide some insight into workforce diversity. A study with a larger sample size would allow for more in-depth statistical analysis and would enable researchers to examine the degree and form of the relationship between diversity and organizational outcomes. In addition because anonymity was guaranteed, the research was unable to explore whether the MCS and

MCSS work groups from the same branch shared similar views towards diversity. Future research may be able to address level of analysis issue and explore its implications. It is hoped that the results of this study will help to create a better understanding of workforce diversity and will provide a foundation upon which other researchers can build.

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APPENDIX 1: Glossary of Terms

Access and Legitimacy Work Group Culture: refers to a work group that promotes differentiation.

Discrimination and Fairness Work Group Culture: refers to a work group that emphasizes assimilation because differences between people are believed to cause a problem.

Diversity: refers to a workplace that reflects differences with respect to gender, age, ethnic background, education, family status, religion and/or disability for instance.

Learning and Effectiveness Work Group Culture: refers to a work group that promotes integration.

Managing Diversity: refers to learning to work effectively with people who think, speak and act differently than we do.

Organizational Culture: is defined as the collective norms and traditions shared by employees and managers (Weiner, 1997).

Resistance Work Group Culture: refers to a work group that avoids or ignores differences between people.

Work Group Heterogeneity: refers to the degree to which there is dispersion of a particular attribute in a specified population (Blau, 1977).

APPENDIX 2: Measurement Development Work Group Culture Scales

The following list includes the 33 items that were pre-tested with the MDPW and MCP groups for the work culture scale.

Resistance

- ☐ Pressures for diversity are viewed as a threat to the culture of the organization.
- ☐ Diversity is viewed as a marginal issue.
- ☐ Diversity is not accommodated.
- ☐ Stereotypes about certain groups sometimes influence decisions about employees.
- ☐ Employment Equity legislation is seen as a problem.
- ☐ Discussions about diversity are considered irrelevant.
- ☐ Diversity initiatives are viewed as a waste of time and money.
- ☐ Differences between people are ignored.
- ☐ The costs of complying with Employment Equity legislation are believed to outweigh its benefits.

Discrimination and Fairness

- ☐ Differences between people are treated as a problem.
- ☐ Employment Equity legislation is seen as a necessary evil.
- ☐ Employment Equity requirements increase the pressure for diversity.
- ☐ Ethnic background, gender, age, religion, family status and disability for instance do not influence employment decisions.
- ☐ Employment Equity legislation is expected to eliminate barriers for women and minorities.
- ☐ All employees are treated in the same way.
- ☐ Ignoring differences between people maintains harmony.
- ☐ Expressing attitudes and values that go against the group norm is discouraged.

Access and Legitimacy

- ☐ A diverse workforce is viewed as socially desirable.
- ☐ Employing a diverse workforce enables us to access new customers/markets.
- ☐ Minority group views are seen as irrelevant to the core business.
- ☐ Employees believe that customers want to look inside the company and see people like themselves.
- ☐ The only asset a diverse workforce brings to the workplace is knowledge about customers from diverse group.
- ☐ Diversity in the workplace is encouraged because of the changing mix in the Canadian population.
- ☐ Employees from different groups are often slotted into roles specific to their group (e.g., minority employee marketing to minority customers).
- ☐ Employees often get pigeon holed into token positions because of their ethnic background, gender, age, religion, family status and/or disability for instance.

Learning and Effectiveness

- ❑ Employment decisions are based on skills, abilities and personal experiences rather than on quotas.
- ❑ People are valued for the different views they bring to the workplace.
- ❑ Employees are not allowed to incorporate their own experiences and perspectives into the day to day operations. (reverse-scored)
- ❑ Employees are encouraged to recognize and value differences between people equally.
- ❑ Employees are proactive in learning about differences between people
- ❑ Differences between people are shared and celebrated.
- ❑ Differences between people are used as a source of new ideas.
- ❑ Employees learn from the perspective and experience of others

APPENDIX 3: Work Group Culture Questionnaire

Information on this Study

The intent of this form is to ensure that you understand the purpose of this study, and the nature of your involvement, and to provide you with enough information so that you have the opportunity to determine whether you wish to participate.

Purpose: This research is being conducted for a Master's thesis in Management Studies in the School of Business at Carleton University. The purpose of the study is to examine views toward diversity in your work group. You will be asked to respond to statements about diversity.

Research Personnel: Lisa Nancarrow, 526-9803, is the researcher of this project and Dr. Lorraine Dyke, 520-2600 extension 2389, is her supervisor. They may be contacted at any time. If you would like to receive the results of the study you may e-mail your complete address to nancarrow@sympatico.ca, or leave a message at 526-9803. You may also fill out the "Request for Results" area on this page.

Voluntary Participation: Your choice to participate in this study is voluntary and will in no way affect your standing in this course.

Anonymity/Confidentiality: The data collected in this study is confidential. Only the researchers associated with the project will have access to the data. To ensure your complete anonymity, the "Request for Results" form will be separated from the survey upon its receipt.

Right to Withdrawal: You have the right to withdrawal from the research at any time.

I have read the above description of the study and understand the conditions of my participation. My signature indicates that I agree to participate in the research.

Participant's Name _____

Participant's Signature _____

Date _____

✕✕-----

Request for Results

To receive a copy of the results, include
your name and address or fax below:

QUESTIONNAIRE

The following questions ask about views towards diversity within your work group. Diversity refers to a workplace that reflects differences with respect to gender, age, ethnic background, education, family status, religion and disability for instance. When referring to differences between people it is these types of differences that are intended. Work Group refers to the people with whom you currently work closely on a day-to-day basis.

- 1. Please indicate the extent to which you, yourself agree or disagree with the following statements about your work group by filling in the most appropriate response for each item.**

I also welcome your feedback about this questionnaire comments about survey items can be made in the margin.

1	2	3	4	5
Strongly Disagree		Neutral		Strongly Agree

In your work group:

_____ Employment decisions are based on skills, abilities and personal experiences rather than on quotas.

_____ Pressures for diversity are viewed as a threat to the culture of the organization.

_____ Differences between people are treated as a problem. (As noted above differences between people refers to for instance gender, age, ethnic background, education, family status, religion and disability.)

_____ A diverse workforce is viewed as socially desirable.

_____ People are valued for the different views they bring to the workplace.

_____ Employment Equity legislation is seen as a necessary evil.

_____ Employing a diverse workforce enables us to access new customers/markets.

_____ Diversity is viewed as a marginal issue.

_____ Employees are not allowed to incorporate their own experiences and perspectives into the day to day business operations.

_____ Minority group views are seen as irrelevant to the core business.

_____ Diversity is not accommodated.

_____ Employees believe that customers want to look inside the company and see people like themselves.

1 Strongly Disagree	2	3 Neutral	4	5 Strongly Agree

Employment Equity requirements increase the pressure for diversity.				

Stereotypes about certain groups sometimes influence decisions about employees.				

Employment Equity legislation is seen as a problem.				

The only asset a diverse workforce brings to the workplace is knowledge about customers from diverse groups.				

Employees are encouraged to recognize and value differences between people equally.				

Discussions about diversity are considered irrelevant.				

Differences between people do not influence employment decisions (As noted above differences between people refers to for instance gender, age, ethnic background, education, family status, religion and disability.)				

Employees are proactive in learning about differences between people.				

Diversity in the workplace is encouraged because of the changing mix in the Canadian population.				

Employment Equity legislation is expected to eliminate barriers for women and minorities.				

Diversity initiatives are viewed as a waste of time and money.				

All employees are treated in the same way.				

Differences between people are ignored.				

Ignoring differences between people maintains harmony.				

Employees from different groups are often slotted into roles specific to their group (e.g., minority employee marketing to minority customers).				

Differences between people are shared and celebrated.				

Expressing attitudes and values that go against the group norm is discouraged.				

Employees often get pigeon holed into token positions because of their ethnic background, gender, age, religion, family status and/or disability for instance.				

Differences between people are used as a source of new ideas.				

The costs of complying with Employment Equity legislation are believed to outweigh its benefits.				

Employees learn from the perspective and experience of others.				

When I summarize the data, I would like to be able to describe the group of people who responded. I would appreciate it if you could provide some personal information. **Please be assured that your responses are anonymous and will be held in confidence.**

1. What is your age? _____ Years

2. What is your gender? (Please circle)

A. Male

B. Female

3. How many years of full-time work experience do you have? _____ Years

4. What job category best describes your job?

- _____ Senior Management/Executive
- _____ Middle Management/Project Manager
- _____ First Level Manager/Supervisor
- _____ Professional or Technical Position
- _____ Other Non-management Position

5. What functional area best describes your work experience?

- _____ Marketing/Sales
- _____ Manufacturing
- _____ Human Resources
- _____ Purchasing
- _____ Research and Development/Engineering
- _____ Accounting and Finance
- _____ Other (Please describe) _____

Thank you again for taking the time to complete this questionnaire.

Lisa Nancarrow
Carleton University
M.M.S Program
School of Business, Dunton Tower
Ottawa, Ontario
K1S 5B6

APPENDIX 4: Final Version Work Group Culture Scales

The following indicates the final scale items that will be utilized in the work culture scale.

Resistance Model

- ☐ In my work group pressures for diversity are viewed as a threat to the culture of the organization.
- ☐ Diversity is not accommodated.
- ☐ In my work group stereotypes about certain groups sometimes influence decisions about employees.
- ☐ In my work group Employment Equity legislation is seen as a problem.
- ☐ In my work group discussions about diversity are considered irrelevant
- ☐ The costs of complying with Employment Equity legislation are believed to outweigh its benefits.

Discrimination and Fairness Model

- ☐ People feel that diversity management should create an organization that is blind to race, gender and ethnicity.
- ☐ People believe fairness means treating everyone the same way.
- ☐ Differences between people do not influence employment decisions. (As noted above differences between people refers to gender, age, ethnic background, education, family status, religion and disability.)
- ☐ Employment Equity legislation is expected to eliminate barriers for women and minorities.
- ☐ All employees are treated in the same way.
- ☐ Differences between people are ignored.
- ☐ Ignoring differences between people maintains harmony.

Access and Legitimacy Model

- ☐ Employing a diverse workforce enables us to access new customers/markets.
- ☐ In my work group minority group views are seen as irrelevant to the core business.
- ☐ Employees believe that customers want to look inside the company and see people like themselves. (For instance gender, age, ethnic background, education, family status, religion and disability.)
- ☐ The only asset a diverse workforce brings to the workplace is knowledge about customers from diverse group.
- ☐ Employees from different groups are often slotted into roles specific to their group (e.g., minority employee marketing to minority customers).
- ☐ In my work group employees often get pigeon holed into token positions because of their ethnic background, gender, age, religion, family status and/or disability for instance.

Learning and Effectiveness Model

- ❑ Employment decisions are based on skills, abilities and personal experiences rather than on quotas.
- ❑ In my work group people are valued for the different views they bring to the workplace.
- ❑ Employees are not allowed to incorporate their own experiences and perspectives into the day to day operations. (reverse-scored)
- ❑ Employees are encouraged to recognize and value differences between people equally.
- ❑ In my work group differences between people are shared and celebrated.
- ❑ In my work group differences between people are used as a source of new ideas.
- ❑ Employees learn from the perspective and experience of others.

APPENDIX 5: Follow-up Responses

Follow-up Response Number One Model Testing Questionnaire

Dear

Last week you received a questionnaire asking you to respond to statements about diversity, organizational outcomes and the group you supervise.

If you have already completed and returned it to me please accept my sincere thanks. If not, please do so today before the RRSP rush is upon us. Because the questionnaire has only been sent to the Manager of Customer Sales and Service and the Manager of Customer Service at each Ottawa area branch it is extremely important that your response is included in the study.

If by some chance you did not receive the questionnaire, or it got misplaced, please call me at 526-9803 or e-mail me at nancarrow@sympatico.ca and I will get another one in the mail to you today.

Sincerely,

Lisa Nancarrow

Follow-up Response Number Two
Model Testing Questionnaire

Dear

About two weeks ago I wrote to you seeking your opinion about diversity, organizational outcomes and the group you supervise. As of today I have not yet received your completed questionnaire.

I am writing to you again because of the significance of each questionnaire. The questionnaire has only been sent to the Manager of Customer Service and the Manager of Customer Sales and Service at each Ottawa area branch – a sample of only 38 participants. Valid statistical analysis requires a minimum of 30 responses. As a result it is extremely important that your response is included in the study.

If by some chance you did not receive the questionnaire, or it was misplaced, a replacement questionnaire can be sent to you immediately. You can contact me at 526-9803 or e-mail me at nancarrow@sympatico.ca and I will get another one in the mail to you today.

I very much appreciate your help.

Sincerely,

Lisa Nancarrow
Candidate, Master of Management Studies
School of Business
Carleton University

Follow-up Response Number Three
Model Testing Questionnaire

Dear

About four weeks ago I wrote to you seeking your opinion about diversity, organizational outcomes and the group you supervise. I have not yet received your completed questionnaire. I wanted to contact you to let you know that it is not too late to participate.

The questionnaire has only been sent to the Manager of Customer Service and the Manager of Customer Sales and Service at each Ottawa area branch – a sample of only 38 participants. Valid statistical analysis requires a minimum of 30 responses. As a result it is extremely important that as many managers participate as possible. There is still an opportunity to respond to the questionnaire as final data analysis will not commence until after March 30, 2001.

If by some chance you did not receive the questionnaire, or it was misplaced, a replacement questionnaire can be sent to you immediately. You can contact me at 526-9803 or e-mail me at nancarrow@sympatico.ca.

I very much appreciate your help.

Sincerely,

Lisa Nancarrow
Candidate, Master of Management Studies
School of Business
Carleton University

APPENDIX 6: Diversity Questionnaire

Dear Participant:

Today's diverse work force poses both challenges and opportunities for organizations. To gain a better understanding of diversity issues in its workforce, _____ is participating in a study of the impact of diversity on organizational outcomes. The Manager of Customer Sales and Service and the Manager of Customer Service at each Ottawa area branch are being asked to participate. The questionnaire asks you to respond to statements about diversity, organizational outcomes and the group you supervise. The questionnaire calls for brief answers, most questions involve assigning a rating from -2 to +2. The questionnaire will take approximately 20 to 30 minutes to complete.

We are contacting you in the hopes that you can spare a few minutes of your time to help us with this research. Lisa Nancarrow is undertaking the study as her M.M.S thesis in the area of diversity management. _____ supports the research but wants to make it clear that the research is strictly for the requirements of the M.M.S degree. Lisa has worked for _____ for three years and is currently employed part-time at the _____. Professor Lorraine Dyke from the School of Business at Carleton University is participating as Lisa's thesis advisor.

Each branch will receive a package containing two envelopes; one addressed to the MCSS and the other to the MCS. Each of these envelopes will contain an anonymous questionnaire; an informed consent form and two return envelopes. Since responses are anonymous you face minimal risks. No deception or coercion will be involved in the research. Once the questionnaire has been completed, we will ask respondents to return the consent form and the questionnaire in separate envelopes thus ensuring anonymity. The consent forms will not be attached to the questionnaire and questionnaires will not be associated with any specific individual. The signed consent form will be used to check the mailing list to determine who has responded and who has not. The return envelopes have been addressed by Lisa Nancarrow and will be sent to the _____ where she works. Lisa will open each envelope.

If you would like to receive a copy of the results of the study, you may fill out the section "Request for Results" on the consent form. Alternatively, you may e-mail your complete address to nancarrow@sympatico.ca, or leave a message at 526-9803. If you have any questions and or comments you may contact Lisa Nancarrow or Professor Lorraine Dyke at the phone numbers provided below.

Thank you in advance for your time and your help. Your participation in this study is very much appreciated.

Sincerely,

Lisa Nancarrow B.Comm
M.M.S Candidate,
School of Business
Carleton University
(613) 526-9803

Dr. Lorraine Dyke
Associate Professor
School of Business
Carleton University
(613) 520-2600 ext. 2389

Informed Consent Form

The intent of this form is to ensure that you understand the purpose of this study, and the nature of your involvement, and to provide you with enough information so that you have the opportunity to determine whether you wish to participate.

Purpose: This research is being conducted for a Master's thesis in Management Studies in the School of Business at Carleton University. The purpose of the study is to examine diversity and organizational outcomes in your work group. You will be asked to respond to statements about diversity, organizational outcomes and your work group.

Research Personnel: Lisa Nancarrow, 526-9803 is the principal researcher for this project and Dr. Lorraine Dyke, 520-2600 extension 2389, is her supervisor. They may be contacted at any time. Lisa has worked at _____ for three years and is currently employed part-time at the _____.

Task Requirements: There is one questionnaire that you will be asked to complete.

Duration: The questionnaire will take approximately 20 to 30 minutes to complete.

Voluntary Participation: Your choice to participate in this study is voluntary. If you choose to participate it should be noted that once the researchers have received your survey it will be impossible to withdraw from the study as questionnaires will be anonymous and impossible to match with individual responses.

Anonymity/Confidentiality: The data collected in this study is anonymous and confidential. Only the researchers associated with the project will have access to the data. To ensure your complete anonymity, the "Informed Consent Form" will be returned in an envelope separate from the questionnaire.

Risks: Since responses are anonymous you face minimal risks. No deception or coercion is involved in the research.

Right to Withdrawal: You have the right to withdrawal from the research at any time throughout the completion of the questionnaire.

I have read the above description of the study and understand the conditions of my participation. My signature indicates that I agree to participate in the research.

Participant's Name _____

Participant's Signature _____

Researcher's Name _____

Researcher's Signature _____

Date _____

Request for Results _____ YES _____ NO

If you would like a copy of the results please indicate the address you would like us to mail them to in the space provided below.

Section A: Work Group

The following questions ask about views towards diversity within your work group. **Diversity** refers to a workplace that reflects differences with respect to gender, age, ethnic background, education, family status, religion and/or disability for instance. When referring to **differences between people** it is these types of differences that are intended. **Work group** refers to the people with whom you supervise.

1. Please indicate the extent to which you, agree or disagree with the following statements about your work group by circling the most appropriate response for each item.

IN YOUR WORK GROUP:

	Strongly Disagree		Neutral		Strongly Agree	
People believe fairness means treating everyone the same way.	-2	-1	0	1	2	
Employing a diverse workforce enables us to access new customers/markets.	-2	-1	0	1	2	
Employment decisions are based on skills, abilities and personal experiences rather than on quotas.	-2	-1	0	1	2	
In my work group pressures for diversity are viewed as a threat to the culture of the organization.	-2	-1	0	1	2	
People feel that diversity management should create an organization that is blind to race, gender religion and ethnicity.	-2	-1	0	1	2	
In my work group differences between people are ignored.	-2	-1	0	1	2	
In my work group people are valued for the different views they bring to the workplace.	-2	-1	0	1	2	
Employees are not allowed to incorporate their own experiences and perspectives into day to day work activities.	-2	-1	0	1	2	
In my work group minority group views are seen as irrelevant to the core business.	-2	-1	0	1	2	
Diversity is not accommodated.	-2	-1	0	1	2	

IN YOUR WORK GROUP:

	Strongly Disagree		Neutral		Strongly Agree	
Employees believe that customers want to look inside the company and see people like themselves (employees who reflect, for instance the customers gender, age, ethnic background etc.)	-2	-1	0	1	2	
In my work group stereotypes about certain groups sometimes influence decisions about employees.	-2	-1	0	1	2	
In my work group Employment Equity legislation is seen as a problem.	-2	-1	0	1	2	
The only asset a diverse workforce brings to the workplace is knowledge about customers from diverse groups.	-2	-1	0	1	2	
In my work group employees are encouraged to recognize and value differences between people equally.	-2	-1	0	1	2	
In my work group discussions about diversity are considered irrelevant.	-2	-1	0	1	2	
Differences between people do not influence employment decisions (As noted above differences between people refers to for instance gender, age, ethnic background, education, family status, religion and/or disability.)	-2	-1	0	1	2	
Employment Equity legislation is expected to eliminate barriers for women and minorities.	-2	-1	0	1	2	
All employees are treated in the same way.	-2	-1	0	1	2	
Ignoring differences between people maintains harmony.	-2	-1	0	1	2	
Employees from different groups are often slotted into roles specific to their group (e.g., minority employee marketing to minority customers).	-2	-1	0	1	2	
In my work group differences between people are shared and celebrated.	-2	-1	0	1	2	

IN YOUR WORK GROUP:

	Strongly Disagree 		Neutral 		Strongly Agree
In my work group employees often get pigeon holed into token positions because of their ethnic background, gender, age, religion, family status and/or disability for instance.	-2	-1	0	1	2
In my work group differences between people are used as a source of new ideas.	-2	-1	0	1	2
The costs of complying with Employment Equity legislation are believed to outweigh its benefits.	-2	-1	0	1	2
Employees learn from the perspective and experience of others.	-2	-1	0	1	2

The following items are made up of statements using several terms, which are defined below for you. Please refer to them throughout the rest of the questionnaire.

Culture: the beliefs, values, traditions, ways of behaving, language of any social group. A social group may be racial, ethnic, religious, etc.

Race or racial background: sub-group of people possessing common physical or genetic characteristics. Examples include White, Black, North American Indian.

Ethnicity or ethnic group: specific social group sharing a unique cultural heritage (i.e. customs, beliefs, language, etc.) Two people can be of the same race (e.g. White), but be from different ethnic groups (e.g. Irish-Canadian, Italian Canadian)

Country: groups that have been politically defined; people from these groups belong to the same government (France, Ethiopia, Canada). People of different races (White, Black, Asian) or ethnicities (Italian, Japanese) can be from the same country (Canada).

2. Please indicate how descriptive each statement is of you by filling in the number corresponding to your response. This is not a test, so there are no right or wrong, good or bad answers.

1 Strongly Disagree	2 Disagree	3 Disagree a little bit	4 Agree a little bit	5 Agree	6 Strongly Agree

I would like to join an organization that emphasizes getting to know people from different countries.					

Persons with disabilities can teach me things I could not learn elsewhere.					

Getting to know someone of another race is generally an uncomfortable experience for me.					

I would like to go to dances that feature music from other countries.					

I can best understand someone after I get to know how he/she is both similar and different from me.					

I am only at ease with people of my race.					

I often listen to music of other cultures.					

Knowing how a person differs from me greatly enhances our friendship.					

It's really hard for me to feel close to a person from another race.					

I am interested in learning about the many cultures that have existed in this world.					

In getting to know someone, I like knowing both how he/she differs from me and is similar to me.					

It is very important that a friend agrees with me on most issues.					

I attend events where I might get to know people from different racial backgrounds.					

Knowing about the different experiences of other people helps me understand my own problems better.					

I often feel irritated by persons of a different race.					

3. Please think about your current work group and answer the following questions.

	Never 		Sometimes 		Always
A. Are there differences of opinion in your work group?	-2	-1	0	1	2
B. Do members of your work group disagree about how things should be done?	-2	-1	0	1	2
C. Do members of your work group disagree about which procedure should be used to do work?	-2	-1	0	1	2
D. Are arguments in your work group task related?	-2	-1	0	1	2
E. Are personality clashes evident in your work group?	-2	-1	0	1	2
F. Is there tension among members of your work group?	-2	-1	0	1	2
G. Do people get angry while working in your work group?	-2	-1	0	1	2
H. Is there jealousy or rivalry among members of your work group?	-2	-1	0	1	2
I. Is conflict dealt with openly in your work group?	-2	-1	0	1	2
J. Is conflict avoided at all costs in your work group?	-2	-1	0	1	2
K. If conflict arises do the people involved initiate steps to resolve it immediately?	-2	-1	0	1	2
L. Is conflict viewed as detrimental to getting the work done in your work group?	-2	-1	0	1	2

M. Are emotional displays (i.e. crying, yelling) accepted in your work group?	-2	-1	0	1	2
N. Are disagreements encouraged in your work group?	-2	-1	0	1	2
O. Are differences of opinion about job responsibilities avoided in your work group?	-2	-1	0	1	2

4. The following statements relate to your work group's internal functioning. Rate your work group with respect to how well the group performed with regard to the following.

	Very Poorly 				Extremely Well
A. Making decisions as a team.	-2	-1	0	1	2
B. Getting along with each other.	-2	-1	0	1	2
C. Building consensus.	-2	-1	0	1	2
D. Trusting each other's judgments.	-2	-1	0	1	2
E. Communicating freely and openly.	-2	-1	0	1	2
F. Listening to a variety of opinions.	-2	-1	0	1	2
G. Tolerating a high level of disagreement/dissension.	-2	-1	0	1	2
H. Delegating decision-making authority.	-2	-1	0	1	2
I. Agreeing on final decisions.	-2	-1	0	1	2
J. Allowing all members equal participation.	-2	-1	0	1	2

5. The following statements relate to communication practices that occur in work groups. Answer each statement depending on whether the statement applies to your work group.

	Never 		Sometimes 		Always
A. Much time is taken up uselessly because people misunderstand what others are saying and respond to statements that weren't clear.	-2	-1	0	1	2
B. The grapevine is active in my work group.	-2	-1	0	1	2
C. Feedback between members that is not complimentary is given in a constructive way.	-2	-1	0	1	2
D. Members of the work group adjust communication techniques to fit the listener.	-2	-1	0	1	2
E. It is easy to talk openly to all members of this group.	-2	-1	0	1	2
F. Group members listen and are respectful of others.	-2	-1	0	1	2
G. Group members recognize that non-verbal cues (tone and body language) are just as important as verbal cues.	-2	-1	0	1	2
H. Members of the work group spend a lot of time talking about job related issues.	-2	-1	0	1	2
I. It is easy to ask advice from any member of this group.	-2	-1	0	1	2

6. Please indicate how often the following statements characterize your work group?

	Never 		Sometimes 		A lot
A. Demonstrated originality in their work.	-2	-1	0	1	2
B. Took risks in terms of producing new ideas in doing jobs.	-2	-1	0	1	2
C. Found new uses for existing methods.	-2	-1	0	1	2
D. Solved problems that had caused others difficulty.	-2	-1	0	1	2
E. Tried out new ideas and approaches to problems.	-2	-1	0	1	2
F. Generated novel, but operable work-related ideas.	-2	-1	0	1	2
G. Served as a good role model for creativity.	-2	-1	0	1	2

7. Could you identify issues, which still need to be addressed in your work group with respect to a diverse workforce?

Section B: Characteristics of the Work Group

I need some information about your work group to help interpret your answers. Please be assured that your responses are anonymous and will be held in confidence. Please fill in the required information or circle the most appropriate response.

1. How many employees do you supervise? _____EMPLOYEES

2. How many employees in your work group are?

- A. Under 20 years _____
- B. 20-29 years _____
- C. 30-39 years _____
- D. 40-49 years _____
- E. 50 + years _____

3. How many employees are?

- A. Male _____
- B. Female _____

4. Please indicate the number of employees who have worked at the branch:
(Please select only one category for each employee)

- A. 0-2 years _____
- B. 2-4 years _____
- C. 4-6 years _____
- D. 6-8 years _____
- E. 8-10 years _____
- F. 10+ years _____

5. How many employees work?

- A. full time _____
- B. part time _____
- C. alternative work options _____

6. Please indicate the number of employees whose highest level of educational achievement falls into each of the following categories:

- A. High School _____
- B. Some college/university _____
- C. College Diploma _____
- D. University Degree _____
- E. Post-graduate Degree _____

7. If possible, please indicate the number of employees who?

- A. Have Never been married _____
- B. Are Married or living with a significant other _____
- C. Are Separated, divorced or widowed _____

8. If possible, please indicate the number of employees who have:

- A. 0 children _____
- B. 1-2 children _____
- C. 3-4 children _____
- D. 5 or more children _____

9. Please indicate the number of employees whose ethnic origin you perceive to fall into each of the following categories: (Please note: these categories are adopted from Statistics Canada; if you feel that something has been omitted please feel free to add it below.)

_____ White

_____ Chinese

_____ South Asian (e.g. East Indian, Pakistani, Sri Lankan, etc.)

_____ Black

_____ Filipino

_____ Latin American

_____ Southeast Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese, etc.)

_____ Arab

_____ West Asian (e.g., Afghan, Iranian, etc.)

_____ Japanese

_____ Korean

_____ Aboriginal person (North American Indian, Métis, Inuit)

_____ Other Number _____ Please specify ethnic origin(s) _____

Section C: Personal Information

I need some information about you in order to describe the people who responded to the questionnaire. Please be assured that your responses are anonymous and will be held in confidence.

1. How long have you worked:

- A. At Canada Trust? _____ YEARS
- B. At your current branch? _____ YEARS
- C. In your current position? _____ YEARS

2. What is your age? _____ Years

3. What is your gender? (Please circle)

- C. Male
- D. Female

4. Please indicate your ethnic background:

- ☐ White
- ☐ Non-White

5. Please circle the letter which best describes your educational background:

- A. High School
- B. Some college/university
- C. College Diploma
- D. University Degree
- E. Post-graduate Degree

6. What is your present marital status?

- A. Never married
- B. Married or living with a significant other
- C. Separated, divorced or widowed

7. How many children do you have? _____

Thank you for your time. Your participation is greatly appreciated.

If you wish to contact Lisa Nancarrow you may do so at nancarrow@sympatico.ca, or leave a message at 526-9803.

APPENDIX 7: Blau's Heterogeneity Index

Work Group	Age	Gender	Length Of Employment At Branch	Employment Status	Ethnicity
1	0.70	0.18	0.62	0.42	0.50
2	0.72	0.32	0.00	0.32	0.32
3	0.40	0.38	0.60	0.44	0.49
4	0.41	0.22	0.22	0.53	0.38
5	0.47	0.38	0.47	0.22	0.38
6	0.24	0.41	0.61	0.00	0.24
7	0.49	0.20	0.59	0.49	0.49
8	0.61	0.44	0.61	0.50	0.00
9	0.56	0.34	0.57	0.50	0.41
10	0.65	0.49	0.73	0.62	0.24
11	0.35	0.35	0.49	0.35	0.35
12	0.70	0.18	0.64	0.42	0.18
13	0.61	0.28	0.67	0.28	0.28
14	0.59	0.47	0.63	0.22	0.38
15	0.26	0.43	0.46	0.47	0.36
16	0.58	0.39	0.56	0.48	0.32
17	0.22	0.38	0.66	0.41	0.50
18	0.67	0.44	0.79	0.49	0.00
19	0.56	0.43	0.72	0.57	0.31
20	0.49	0.49	0.35	0.35	0.20
21	0.59	0.22	0.53	0.41	0.41
22	0.36	0.34	0.50	0.46	0.24
23	0.72	0.49	0.66	0.54	0.35
24	0.59	0.50	0.63	0.41	0.24
25	0.20	0.20	0.47	0.49	0.20
26	0.53	0.38	0.41	0.22	0.50
27	0.57	0.39	0.75	0.50	0.23
28	0.32	0.45	0.42	0.32	0.26
29	0.42	0.32	0.72	0.43	0.00
30	0.22		0.22	0.49	0.00
31	0.65	0.43	0.47	0.50	0.43
32	0.53	0.42	0.70	0.56	0.00
33	0.49	0.49	0.52	0.49	0.35
Mean	0.49	0.37	0.54	0.42	0.29
Range	0.20 - 0.72	0.18 – 0.50	0.00 – 0.79	0.00 – 0.62	0.00 – 0.50

APPENDIX 8: Summary of Comments on Workplace Diversity

The last question in the survey asked respondents to “identify issues, which still need to be addressed in their work group with respect to a diverse workforce.” In general responses were favourable and encouraging about work place diversity. The Table below summarizes respondents’ comments and suggestions regarding work force diversity.

Summary of Comments on Workplace Diversity

Ratio of men vs. women on team
We would like an Asian sales person to complement our existing diverse team
We have an extremely low male/female ratio on the front line 1: 9. It is difficult to find male applicants and it is difficult to keep them in the CSO role once they are hired
None that I can think of
Holiday Observances –understanding and respecting
Occasional Jokes which are not appropriate at work
Depending on the “team worth” of an individual. Alternate work options for some are easy and for others tough to manage in an 8-8 environment. Maturity of team has a lot to do with this
I feel we have a full understanding, and respectfulness in this work group in terms of a diverse workforce
Age group – young perceived as inexperienced and not always rational in their decisions Older group – perceived as too rigid in their ways – Not always as flexible as younger staff

APPENDIX 9: Conflict Openness Norms Measure

Item	Inter-Item Correlation	Alpha if Item Deleted
3I Is conflict dealt with openly in your work group?	-0.09	0.34
3J Is conflict avoided at all costs in your work group? *	0.36	0.02
3K If conflict arises do the people involved initiate steps to resolve it immediately? *	-0.10	0.34
3L Is conflict viewed as detrimental to getting the work done in your work group? *	0.33	0.03
3M Are emotional displays (i.e. crying, yelling) accepted in your work group?	-0.04	0.35
3N Are disagreements encouraged in your work group?	0.13	0.21
3O Are differences of opinion about job responsibilities avoided in your work group? *	0.22	0.18

* Reverse scored items

APPENDIX 10: Measurement Development – Means, Standard Deviations and Correlations

Mean and Standard Deviation of the Work Group Culture Scales for the Measurement Development Study

		Resistance	Discrimination and Fairness	Access and Legitimacy	Learning and Effectiveness
N	Valid	45	47	44	50
	Missing	6	4	7	1
Mean		14.111	14.1489	15.5682	27.2200
Std. Deviation		4.7445	3.3033	3.9614	4.7436

Correlations between the Work Group Culture Scales for the Measurement Development Study

		Resistance	Discrimination and Fairness	Access and Legitimacy	Learning and Effectiveness
Resistance	Pearson Correlation	1.000	-.466**	.730**	-.709**
	Sig. (2-tailed)	.	.002	.000	.000
	N	45	42	40	45
Discrimination and Fairness	Pearson Correlation	-.466**	1.000	-.321*	.485**
	Sig. (2-tailed)	.002	.	.044	.001
	N	42	47	40	46
Access and Legitimacy	Pearson Correlation	.730**	-.321*	1.000	-.480**
	Sig. (2-tailed)	.000	.044	.	.001
	N	40	40	44	43
Learning and Effectiveness	Pearson Correlation	-.709**	.485**	-.480**	1.000
	Sig. (2-tailed)	.000	.001	.001	.
	N	45	46	43	50

* correlation is significant at the 0.05 level (2-tailed)

**correlation is significant at the 0.01 level (2-tailed)

APPENDIX 11: Work Group Culture Average Score

Work Group	Resistance	Discrimination and Fairness	Access and Legitimacy	Learning and Effectiveness
1	1.17	3.29	2.33	5.00
2	1.83	3.00	2.33	4.14
3	1.50	2.86	2.33	4.43
4	1.33	3.71		4.71
5	1.67	3.14	2.50	4.86
6	1.17	3.71	3.00	4.57
7	2.00	4.43	2.33	4.14
8	1.67	3.29	3.17	5.00
9	1.33	2.86	2.33	5.00
10	1.67	2.86	2.17	4.00
11	1.83	3.29		3.86
12	1.33	4.00	2.67	4.14
13	1.33	4.43	2.33	4.29
14	1.67	4.00	3.17	4.57
15	1.50	2.57	2.50	4.57
16	1.17	3.14	2.83	4.29
17	2.17	3.57	3.00	4.00
18	1.67	4.00	2.67	4.43
19	1.83	2.29	2.33	4.29
20	2.00	3.43	2.67	4.29
21	1.33	3.00	2.67	4.14
22	1.50		2.83	4.29
23	1.00	3.71	2.33	5.00
24	1.00		2.67	4.29
25	1.50	4.00	2.17	4.71
26	2.67	3.43	3.17	3.57
27	2.00	3.29	2.67	4.57
28	2.00	3.86	3.00	4.14
29	2.50	4.14		4.57
30	1.83	3.71	2.17	4.43
31	1.67	3.29		5.00
32	1.33	2.86	2.33	4.43
33	1.33	2.29	1.67	4.71
Total having highest score on this scale	0	3	0	31
Mean	1.62	3.40	2.56	4.44

* Work groups were identified as having high scores on more than one scale if the mean scores on more than one scale were higher than 3.5 out of 5. This may indicate conflicting attitudes within the work group as a common phenomenon.

APPENDIX 12: Work Group Culture as One Scale

Only 1 hypothesis was supported when the independent variable work group culture was treated as a single variable measuring the degree of diversity integration (i.e. resistance was scored as 1, discrimination and fairness was scored as 2, access and legitimacy was scored as 3 and learning and effectiveness was scored as 4). The higher the score the more integrative the work groups approach to diversity. Correlation analysis found that increasing diversity integration increased conflict openness norms but was unrelated to task conflict, emotional conflict, team orientation, communication, and creativity (see Table below for correlations between the independent variable work group culture and the dependent variables). This finding suggests that as organizations progress toward greater integration of diversity, conflict is dealt with more openly.

Correlation with a Single Work Group Culture Scale and the Dependent Variables

			Task Conflict	Emotional Conflict	Conflict Openness Norms	Team Orientat- ion	Comm- unication	Creativity
Work Group	Pearson Correlation		.052	.121	.433*	-.095	-.116	-.266
Culture	Sig. (2-tailed)		.796	.547	.027	.636	.564	.180
1 scale	N		27	27	26	27	27	27

*correlation is significant at the 0.05 level (2-tailed)

Hypotheses	Results
A more integrative work group culture will decrease task and emotional conflict	-
A more integrative work group culture will increase conflict openness norms	✓
A more integrative work group culture will increase team orientation	-
A more integrative work group culture will increase communication	-
A more integrative work group culture will increase creativity	-