

**Virtual Teams in Human Resource Services West,
Human Resources and Skills Development Canada (HRSDC):
An Investigation of Implementation.**

**In partial fulfillment of the requirements for the degree of Masters in Public
Administration.**

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EXECUTIVE SUMMARY

The introduction and continued implementation of virtual teams in the Government of Canada has the potential to create expansive cost saving measures, streamline services and to best utilize the professional expertise of the public service toward a unified goal of efficient and effective public service to Canadians.

Since September 2008, Human Resource Services (HRS) West of Human Resource and Skills Development Canada (HRSDC) has been engaged in a virtual transformation towards a developed and fully operational virtual team stretching across Western Canada. Prior to 2008, the region was operating as four separate regions: British Columbia/Yukon, Alberta/Territories, Manitoba and Saskatchewan, each comprised of separate co-located teams that individually reported to National Headquarters in Ottawa. In 2008 these four teams were amalgamated into one geographically dispersed team under a single Director. This newly implemented virtual team has provided an excellent case study for the introduction of virtual teams in the public sector and the challenges and benefits from the perspective of team relationships and task completion. Conducting an evaluation of virtual team implementation provides an opportunity to reflect on where virtual teams have been successful for HRS West and where there are still potential areas for improvement. It is also one of the few studies that investigate a public sector virtual team offering data and research to compliment future academic study.

This research is based on a questionnaire that was distributed to all HRS West employees. The research questions were based on the conceptual framework for this analysis, which includes analyzing the relationship and task completion competencies of HRS West. Relationships were analyzed through the sub-categories of communication, trust, conflict resolution and leadership. Task completion was analyzed through the sub-categories of established norms, technology and goals. Respondents were asked to rank a series of statements on a scale of one to six to allow for a comparison of means. Respondents were also asked a series of open-ended questions requesting they provide information on positive and negative experiences associated with task completion and relationships in HRS West. Following an analysis of the quantitative questionnaire data and qualitative information, several key findings emerged. Overall, HRS West employees identified successes in the areas of trust and interpersonal relationships. They also identified areas of concern that may require attention including conflict resolution, communication with leadership, and technology. These findings are important as they provide HRS West with an assessment of the work completed to date and recommendations for next steps.

With the successes and challenges for HRS West summarized and measured, this research provides several key recommendations for consideration to improve effectiveness of HRS West's virtual team. To attain the recommendations questionnaire respondents were asked to provide qualitative information to describe what changes could be made to improve operations with respect to task completion and relationships. The top three recommendations identified for both relationships and task completion are the foundation for the recommendations. A detailed list of the recommendations and specific avenues for implementation can be found in the Recommendations section of this analysis.

These Recommendations include:

Relationships

Recommendation 1) Take steps to improve Communication to enrich relationships in HRS West. This recommendation is based on the observation that communication was the most frequently cited suggestion by employees of HRS West that could improve relationships on their team. Respondents identified that they currently operate amongst insufficient communication practices and that a concentrated effort in this area would improve their working relationships.

Recommendation 2) Use 'face-to-face' meetings to establish and maintain relationships. This recommendation is based on respondents identifying that a lack of in person time affects their relationships and overall efficiency. The respondents identified that face-to-face time influences their ability to build and maintain relationships. In person meetings however, are costly and not always possible so this recommendation is also focused on improving the ability of HRS West virtual team members to build relationships through virtual meetings and communication that more closely resemble face-to-face interactions.

Recommendation 3) Improve access and support provided by leaders and supervisors. This recommendation is based on a compilation of responses detailing that some members of HRS West feel there are areas where their leaders could be more effective in managing virtual relationships and employees.

Task Completion

Recommendation 4) Increase the amount of direct and applicable training employees in HRS West receive to enhance their overall task completion abilities. This recommendation is based on respondents identifying that they do not feel that adequate and appropriate training exists for them to perform their tasks. The research identified that a gap exists in some instances between what is expected of employees in HRS West and the training available to accomplish those expectations.

Recommendation 5) Take steps to establish clear and defined norms that can guide task completion in HRS West. This recommendation is based on respondents identifying that there are not clear and defined norms for their team. It was identified that some team members feel they work amongst unclear direction and resources. Based on this research, the norms for HRS West would be best applied and established to govern the areas of concern such as conflict resolution, communication and technology.

Recommendation 6) Move towards having equally distributed administrative support across HRS West. This recommendation is based on respondents identifying that they have inadequate and/or unequally geographically distributed administrative support. This lack of administrative support has led to HR consultants spending more time on administrative tasks and less time providing strategic advice to clients.

INTRODUCTION

Human Resource Services (HRS) West is a newly implemented virtual team, initiated in 2008. Like many virtual teams in the private and public sector it was created to streamline services and make efficient use of organizational capacities that are geographically dispersed. The implementation of virtual teams has meant that HRS West can offer effective and efficient human resource services to HRSDC business lines across Western Canada.

One of the primary motives for this research is that since the implementation of virtual teams in HRS West, there has been no formal evaluation conducted of policies, practices, and team perceptions. An evaluation was needed to determine the areas in which virtual team implementation has had positive affects on relationships and task completion and the areas that have been negatively impacted. An analysis such as this is important to better understand what HRS West has accomplished to date and to provide a clear vision of their next steps in virtual team implementation and maintenance.

Although there has been research completed on private sector virtual teams, to my knowledge, little research has been completed that focuses specifically on the public sector in Canada and its unique challenges. It is important that public sector virtual teams become a focus of future research. The geographic territory the Canadian federal and many provincial governments are responsible for is vast and requires some degree of virtual relationships and task completion to appropriately meet the needs of the Canadian public. This research therefore provides an important contribution to the literature on virtual teams in the public sector.

The purpose of this project is to review the virtual team experiences of respondents in HRS West with a view to offer suggestions for improving their ability to work together. In doing this, this paper first examines the current academic literature on virtual teams, relationships and task completion and highlights the main theories and trends. The conceptual framework of this analysis is based on relationships and task completion and the structure of the paper is framed around these two themes.

The paper then discusses the methodology that was utilized for both the primary and secondary research. Key findings are then summarized and are used to provide an overall assessment of the effectiveness of virtual teams in HRS West. The paper concludes with recommendations of next steps for HRS West based on the recommendations and data provided by staff of HRS West.

BACKGROUND

Issue or Problem

Organizations in the private and public sector are using computer-mediated technology to connect geographically dispersed teams and leadership¹. This shift away from co-located teams can allow organizations to decrease operational expenditures, unite human capital and accomplish large and cumbersome projects while geographically dispersed. The purpose of this project is to identify opportunities and challenges for virtual teams in a newly implemented virtual team: Human Resource Services West (HRS West) for Human Resources and Skills Development Canada (HRSDC). The analysis will propose principles, practices, and norms for HRS West and offer suggestions for implementations and changes that may improve operations through enhanced task completion and relationships between colleagues and leadership.

Need

This project seeks to provide feedback to HRS West to help them improve their ability to work together. The virtual team experience of HRS West is a new organizational structure and as such an analysis is required to examine successful tools, techniques, and implementation for optimal performance of HRS West.

This study will assist HRS West in identifying what works and what does not work in the implementation and organization of virtual teams in their business line. It will attempt to identify successes and opportunities for improvement to help ensure that relationships are supported and tasks are completed efficiently and effectively.

Background on the Organizational Context

Human Resource and Skills Development Canada:

HRSDC is a department of the Government of Canada. It is responsible for administering various social development programs including: Employment Insurance, the Canadian Pension Plan, Social Insurance Numbers, and various other government programs and services. It is also the department responsible for the Service Canada initiative. The Service Canada initiative is aimed at creating a one-stop service centre for Canadians and administers HRSDC programs in communities across Canada. HRSDC is one of the largest departments in the Government of Canada and provides income security and social development program payments to Canadians through its various programs, services and initiatives.

Human Resource Services West:

HRS West is the internal branch responsible for delivering human resource services to British Columbia, Alberta, Manitoba, Saskatchewan, Nunavut, the Yukon and the North West Territories. It is separated into various business streams: Administration, Labour Relations, Strategic Services and Resourcing. These business streams provide human resource services to Western Canada for HRSDC and Service Canada, providing service to approximately 6000 employees. Managers and employees in each of these business streams are located in offices across the Western region and may or may not be located in the same physical location as their manager, or co-workers.

HRS West has not always been organized and administered through virtual teams and this metamorphosis and its implications on relationships and task completion are the crux of this analysis. The change into a virtual organizational structure and team composition was introduced in 2008 when HRSDC combined four separate human resource service branches into one branch, HRS West. Please see Figure 1 below for a depiction of the four branches that have amalgamated to become HRS West.

Figure 1. Composition of HRS West



The Western Region that exists today had been formerly divided into four separate components: British Columbia/Yukon, Alberta/Territories, Manitoba, and Saskatchewan. Each of these regions had separate Directors, Managers, teams, and client groups. The Western region amalgamated these four separate groups into one region under a single reporting structure organized by human resource specialty (Administration, Labour Relations, Strategic Services and Resourcing) rather than by geographical location. This amalgamation of teams and clients has meant a unification of service standards, tools, geographically dispersed leadership, teams, and client groups.

The structural change has also meant the organization of management reporting structures and client service has been altered and is now organized by human resource specialty rather than by geographical location. This means that a Director in Manitoba may be serviced by a Human Resource (HR) Consultant located in British Columbia for their Labour Relations issues and a different HR Consultant located in Saskatchewan for their Resourcing issues. This is an

important aspect of organizational construction to understand as although Labour Relations, Administration, Strategic Services and Resourcing all report to the same Director each have their own reporting structure and staff geographically dispersed within the boundaries of HRS West. Each of these group provide different HR functions to HRSDC and Figure 2 below provides a brief overview of the functions of each HR specialty.

Figure 2. Brief Overview of HRS West Human Resource Specialties

Labour Relations	Administration	Resourcing	Strategic Services
<ul style="list-style-type: none">• Provides advice on Collective Agreements, Legislation, and Policies• Assists in grievances and disciplinary procedures	<ul style="list-style-type: none">• Provides administration services to all business streams in HRS West	<ul style="list-style-type: none">• Provides advice on staffing processes, appointments, and application of relevant policies and Acts	<ul style="list-style-type: none">• Provides strategic and proactive advice on human resource issues for HRS West

HRS West, while adapting to the changes this new organizational structure, has introduced needs an evaluation of virtual team implementation and how it relates to relationships amongst colleagues and leadership and their ability to complete tasks effectively and efficiently. This analysis will provide HRS West with possible tools and techniques to improve team functioning within their new virtual context.

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Virtual teams such as HRS West are most often and traditionally defined in the literature as teams who work across time, space and organizational boundaries through interactive information technology.² This definition articulates that there are various forces separating virtual teams and that the majority of their interactions, communications, and relationship building occur through computer mediated technology rather than face-to-face interactions.

The analysis of virtual teams in HRS West is conceptually framed around the two concepts of relationships and task completion. Relationships being the connections made and maintained between individuals that comprise a team and task completion being the completion of a pre-determined set of tasks or objectives. These concepts were chosen for analysis as both relationships and task completion are thought to be important indicators of successful team functioning. Within each of these concepts sub-categories were chosen to assist in determining how relationships and task completion are achieved in organizations. Each of these sub-categories is analyzed and discussed in the literature review. A definition and overview of each of these subcategories is depicted below in Figure 3.

Figure 3. Conceptual Framework of the Analysis

Relationships

Communication is a process by which information is shared between individuals.

Trust is a relationship construct comprised of three beliefs – predictability, benevolence, and fairness.

Conflict Resolution is a range of practices and procedures aimed at easing or eliminating sources of conflict.

Leadership is an organizational role that takes the relationships amongst organizational members defined in a structure and enhances them and their ability to perform tasks.

Task Completion

Established Norms are the formal and informal regulators of team and group behaviours

Technology is a tool that connects virtual teams.

Goals are deliberate plans that define what and how a team intends to accomplish.

Virtual teams have been introduced by public and private sector organizations all over the world and may be the biggest single change in the world of work.³ They have created more adaptive organizations and processes and involve 60% of all professional employees.⁴ The increase in their use is attributed to a union of technological and organizational developments along with a wide range of business benefits associated with their implementation. Virtual teams are an effective structural mechanism for bringing together geographically, temporally, and functionally dispersed employees to collaborate on common tasks.⁵ They can also offer an increased knowledge base, a decrease in travel time and can provide flexibility in balancing personal and professional obligations⁶.

In addition to the strengths identified there are also numerous possible disadvantages to virtual team structures. In fact the disadvantages are often

discussed in greater detail in the literature than the benefits. The disadvantages of virtual teams most often arise from difficulties in communication; feelings of isolation; and a lack of trust amongst team members⁷. It has also been identified that team conflict is difficult to resolve; task uncertainty is prevalent; and it can take longer to accomplish tasks virtually⁸. The rapid infiltration of virtual teams into the world of work is not slowing down despite these disadvantages. The purpose of research, such as this analysis of HRS West, is to take some of these challenges and to identify what works and what does not work in the implementation of virtual teams that is specific and relevant to the individual team it is analyzing. This analysis will be used to explore the benefits and drawbacks of virtual teams and to provide principles, practices, and norms for HRS West and offer suggestions for implementations that may improve team relationships and task completion.

Understanding Virtual Teams

Relationships

Relationships are connections that are made and maintained between individuals on a team. Relationships benefit team performance⁹ and are crucial for communication, trust, conflict resolution, and leadership. They are an important construct to explore as virtual teams in particular can serve as weak platforms for interpersonal interactions and relationships.¹⁰ Relationships are important facets of teams and organizations¹¹ and in today's ever-increasing virtual world we are using advanced technologies to lead and follow without knowing the full extent of its impact on human relationships in organizations.¹²

Relationships in virtual teams will be explored through the sub-categories of trust, communication, conflict resolution and leadership. As each are important and re-occurring themes throughout the literature on virtual teams.

Trust

Trust is a crucial factor for social relationships and is the first sub category explored in this analysis. As a relationship construct it is important in organizations where colleagues rely upon one another to accomplish tasks and meet organizational goals.¹³ Trust is a primary challenge in virtual teams and is therefore addressed by various sources in the literature.¹⁴ Trust, when present in relationships allows teams to have confidence that others will complete their work, ensure that stated objectives are met, and that one can rely on the advice and guidance provided by co-workers. It consists of fairness, benevolence, predictability, and reliability of the actions, abilities, and expectations of others.¹⁵ In fact "most definitions of trust are based on the concept of individual

expectations and, in particular, on the confidence that others will act as we expect.¹⁶”

Trust is one of the key relationship aspects that when present stimulates effective and efficient teams. It is also a significant predictor of team performance and satisfaction¹⁷ and team members that experience higher levels of trust have higher perceived performance indicators.¹⁸ Virtual team members that lack trust in one another are less likely to share ideas and collaborate and the collaborative function is crucial in a team’s ability to work together and produce effective and efficient results for their organization. Trust however, is not a relationship construct that is obtained easily. It is primarily connected to repeated patterns of exchange¹⁹ and these repeated exchanges allow team members to trust that their future interactions will yield similar results. Virtual teams, which have little face-to-face interaction, develop trust differently than teams that are co-located or see one another frequently. Face-to-face teams develop trust through social and emotional connections where as virtual teams develop trust through timeliness and appropriate and sound responses to electronic communications.²⁰ Virtual teams that are seeking to build and maintain trust amongst team members can include both social and task related communication in meetings and communication networks. This inclusion of social binding and relationship-based interactions can help to create trust similar to that created amongst face-to-face teams.

Once trust is established in a team it is an important relationship construct to maintain. Teams that are successful in preserving trust in a virtual setting create a set of principles that help to maintain it. Teams that do not establish clear and defined principles such as what information can and cannot be shared outside of the team and what type of communication will be used to transmit certain information, struggle with the formation and maintenance of trust amongst team members. These norms are particularly important in a virtual setting as trust can be easily breached when actions and reactions are not physically observed and can be misinterpreted and misunderstood.²¹ The creation and maintenance of trust in virtual teams is a key relationship construct and is a consistent theme throughout the literature on successful virtual teams. It is therefore an important sub-category for understanding and analyzing relationships in virtual teams.

Communication

Communication connects teams and individuals to one another. It keeps information flowing, tasks completed, knowledge relayed, and relationships built. However when a team is communicating virtually many social and non-verbal cues can be lost including: body language, voice inflection and facial expressions.²² The loss of social and non-verbal cues can complicate and confuse communication, disrupting relationships amongst team members and effective task completion. Communication and its importance for virtual teams is

highlighted and discussed by various authors and researchers as one of the primary challenges for the success of virtual teams.²³

The communication that exists in virtual teams is often complicated and can be disrupted by distance, technology, and time differences. Colleagues cannot see when someone is out for lunch, having a busy day or is distracted by personal issues. They rely on communication with one another to successfully work together and accomplish tasks. Effective communication can overcome these complications and encompasses a team's willingness and ability to share and communicate information with one another.²⁴ Knowledge sharing is a crucial aspect of effective communication as it is the information that is communicated and the message that is received that is the basis and purpose of the communication itself. Knowledge sharing includes the dissemination of existing knowledge and the sharing of new and externally derived information amongst team members. The process of successful knowledge sharing requires active participation, communication, and responses. It contributes to team effectiveness by efficiently utilizing team resources and by reducing duplication of information and errors. Communication facilitates team cooperation and the building and maintenance of relationships amongst team members.

The struggle virtual teams face in establishing successful communication cannot be understated. The overall amount of communication relayed amongst and between virtual teams is less than among face-to-face teams²⁵ and in the absence of frequent face-to-face communication relationships are difficult to build and sustain.²⁶ Electronic communication is also likely to be less personal and teams that communicate virtually have lower levels of satisfaction than face-to-face teams.²⁷ Communication in virtual teams is a crucial relationship construct that binds and brings together the skills of team members and allows for knowledge sharing. It is a primary aspect of the creation and maintenance of relationships and is an important aspect of this analysis to better understand how to support and maintain relationships amongst virtual teams members in HRS West.

Conflict Resolution

All teams experience conflict in some form or another and conflict can strain and damage team relationships making it an important sub-category for exploration in this analysis. In fact it "is a truism in team dynamics that conflict will always occur among team members who are passionately and fully devoted to the purpose of the team."²⁸ Conflict, while an axiom, can negatively affect employee emotions, cognitions, behaviour and productivity. Therefore the manner in which virtual teams manage internal conflict is critical to their success and the sustainment of team relationships. Virtual teams experience conflict more frequently than traditional face-to-face teams,²⁹ ensuring an understanding of where conflicts are

most likely to arise and the establishment of team processes to deal with conflict an important aspect of effective virtual teams.

Common conflicts in virtual teams arise from task, responsibility and role ambiguity, a lack of trust, low group cohesion and diminished social cues.³⁰ These conflicts often occur in virtual teams as members have less time to clarify expectations, roles, tasks and it is more difficult to receive guidance and instruction via virtual means. Conflicts on these issues can also be difficult for a leader or team member to recognize, as some of the physical or social cues that could be recognized by someone co-located are not available in a virtual setting.³¹ This means that conflict can sometimes have prolonged effects on a team and can go unnoticed or avoided for longer than in face-to-face environments. In addition to these concerns the lack of physical interaction and informal relationships between team members can decrease the cohesiveness of virtual teams and can make them more conflict prone than traditional teams. Virtual work environments also make it difficult to recognize and use nonverbal and social communication cues which can cause misunderstandings regarding individual or group intentions. Computer mediated communication is more likely to misrepresent communication than face-to-face communications and team members are more likely to take offence to messages.³²

Once conflict has erupted in a virtual team or between virtual colleagues it is also less easily resolved due to the lack of face-to-face interactions and the greater ability one has to avoid the conflict itself.³³ It is interesting that although most organizations have an external conflict management system very few have formal structures for internal conflict management and particularly for virtual teams. In response to this structural void some virtual teams have developed Virtual Mediation Software to deal with such realities.³⁴ This approach however requires access to expensive and not readily available software. HRS West would be better positioned to provide training to virtual team members and to establish practices in conflict resolution. This would allow virtual team members to deal with workplace conflicts effectively, confidently and at the time of the conflict. Training staff on conflict resolution provides an opportunity to discuss common types and root causes of virtual team conflict and for individual members to explore their conflict resolution skills and style. Virtual teams can take advantage of e-learning to effectively and efficiently educate staff and to reduce conflict amongst virtual team members.³⁵ Conflict resolution is important in the formation and maintenance of relationships. Successful virtual teams place emphasis on having appropriate and effective conflict resolution mechanisms that maintain effective team relationships. It is therefore an important aspect of this analysis and as a sub-category of relationships.

Leadership

Leaders bring together virtual team members and define and describe their relationships with one another. They are an important sub-category in this

analysis as they are tasked with taking the relationships amongst organizational members defined in a structure and enhancing them and their ability to perform tasks and create outputs.³⁶ Leaders involvement and influence on team relationships is consistently explored throughout the literature on virtual teams as organizations and individuals want to better understand how to best implement and maintain virtual reporting relationships.³⁷

All leaders have a number of tasks they are accountable to their team for including but not limited to: articulating and communicating a team vision, establishing norms of behaviour, building trust, performance management, fostering communication, recognizing contributions, and motivating team members.³⁸ These tasks while difficult to execute successfully in a traditional setting are even more complex to assert without a physical presence. The lack of physical presence requires the development of new leadership skills and the need to be creative in designing and implementing structures and processes. This can help ensure that variations from expectations and deliverables can be observed and managed as it is not easy to identify and manage sluggish or disengaged behavior from employees virtually, or to identify and act when virtual silence signals disengagement rather than acquiescence.

The relationship a leader is able to establish and maintain with their employees is of great importance. Strong relationships can make utilizing the unique skills and knowledge sets of each employee easier. Leaders can use communication technology interactively to build and maintain relationships, as interactive and frequent communication is believed to have a curvilinear relationship with virtual team performance and outcome.³⁹ To further enhance successful team relationships virtual leaders can also clarify the roles and tasks of each member to both the individual and the team.⁴⁰ This creates a trust and understanding that all team members have an equally distributed workload, that they are contributing to the team and that team members understand their role and the expectations of that role by both the leader and their fellow colleagues. The establishment of expectations and communicating ones intent by leaders positively affects team functioning and accomplishment. It creates a safe place to share and disseminate knowledge, a framework for how knowledge will be shared, and the tools to share it.

Leaders connect members of virtual teams and are responsible for communicating a vision, establishing norms, assigning tasks, and determining successful completion of those tasks. They are also a crucial aspect of the relationships that team members have with one another and how those relationships interact with overall team effectiveness. Leaders of virtual teams should be cognizant and respondent to the unique realities of virtual leadership and their predominant role in creating and maintaining relationships amongst their team.

Task Completion

Task completion is the structure that guides virtual teams in the absence of temporal and spatial boundaries.⁴¹ It has become the new parameter in the virtual work world as it is one of the few quantitative methods a leader can use to manage performance. Leaders cannot physically observe employees working but they can manage their input through the completed tasks of individual and groups of employees. It is therefore an important construct to discuss.

Task completion will be explored through the sub-categories of established norms, technology and goals. As each are important and re-occurring themes throughout the literature on virtual teams.

Established Norms

Group norms are the formal and informal regulators of team and group behaviours and their presence positively affects team performance and task completion.⁴² They are an important sub-category for analysis as they are a formal structure that facilitate the 'how' of task completion. They are established to facilitate group survival, to simplify and make predictable group behaviour, to avoid interpersonal issues and to express the central values of a team. As constructs, norms are extremely valuable as they can unite a team and provide regularity and predictability in behaviour and task output.⁴³ The most effective norms to establish for virtual teams dictate communication, conflict resolution techniques, the use of technology, and how team goals and tasks are to be established and accomplished.⁴⁴

Norms are most importantly created and enforced for tasks that are central to contribute to group morale, ensure group survival, or express central values about the team.⁴⁵ Norms developed for teams regardless of whether formally or informally created materialize, are conveyed, and persist through the beliefs and actions of the team members and if not present can inhibit and impair their team performance.⁴⁶ Norms are most effectively established in the early formation of a team and can ease uncertainties regarding appropriate behaviour. Norms can be established in various manners and emerge from direct and explicit statements made by leadership, through critical events in the groups history and also through carry over behaviour from past situations and groups.⁴⁷ Norms give rise to obligations that form the basis of individual and collective relationships in the team. Virtual teams that spend their early formation period identifying the participating team members, clarifying role expectations and how they will work together had higher performance levels than teams that did not establish clear norms and expectations.⁴⁸

The establishment and importance of norms is central to successful virtual teams but unfortunately is the most under researched theme in organizational behaviour.⁴⁹ In fact few articles discuss the formation or importance of norms beyond a passing statement.⁵⁰ This lack of literature may be attributed to the methodological issues in measuring norms, and gathering sufficient data across time and teams.⁵¹ Despite the lack of data and research available on norms it is central to understanding task completion for virtual teams.

Technology

Today's virtual teams can choose from a broad array of technologies to support or replace their face-to-face interactions. It is with the aid of technology that the majority of HRS West's communication takes place and it is therefore a crucial aspect of this analysis and its ability to support task completion and relationship developments. Technology along with having fabulous powers to connect those at a geographical distance is also considered a primary barrier to virtual team implementation.⁵² In fact the greater amount of computer-mediated technology used by a team the lower positive affect employees feel and its use negatively influences their commitment and relationship with the team.⁵³ Therefore it is important that the right technology is employed and that it is simple, user-friendly, and available to all virtual team members.⁵⁴

Communication technology includes email, telephones, video conferencing and online chat functions. Its abilities to sustain relationships and assist teams in task completion is often assessed and defined in the literature in relation to its media richness.⁵⁵ Media Richness Theory focuses on characteristics that mimic face-to-face interactions such as cues, language variety, personalization and rapid feedback. As a theory it suggests that the closer communication mimics face-to-face interaction the richer or more consequential the communication is. It identifies face-to-face interaction as the ideal form of communication and that is why technology, such as video conferencing, is generally thought to improve communication in virtual teams.

Media Richness Theory however was developed and tested before the introduction of modern communication technology such as email and therefore some question its relevance for today's virtual teams. Carlson and Zmud's (1999) Channel Expansion Theory was developed to address this gap and asserts that how individuals select, use, and perceive communication channels is as important as the richness of the technology itself. They argue that the richness embedded in communication differs from one individual to the next depending on their familiarity with their organization, tasks and the individuals they are communicating with. Media richness theory is well represented in the literature and has proved to be supported when tested on traditional media such as face-to-face communication, telephone, letters, and memos.⁵⁶ The findings however have proved empirically inconsistent with the introduction of newer media technology such as email and voicemail, the primary tools of modern virtual

teams.⁵⁷ The empirical inconsistencies assert doubt that media richness theory is as relevant for more advanced media and its use in virtual teams. It suggests that the technology itself and its ability to mimic face-to-face interaction may not be the sole reference point for building relationships and completing tasks in a virtual team setting. It suggests that individuals can use email in a rich and meaningful way if they are well supported, trained, and integrated into the team.

Technology can also serve various organizational functions beyond communication. Technology can be used to monitor or take notice when certain team members are disengaged or may need additional support through monitoring the patterns of individuals and groups. Patterns can be an important indicator of employees in need of additional support and leaders can note that particular employees are sending fewer emails or communicating or participating less in videoconferences or brainstorming sessions.⁵⁸ In this manner technology can be used to gauge employees satisfaction, personal commitment, disengagement, need for support, etc. Leaders and team members can tune in and actively use technology to assert a presence with their team and to notice when a particular team member's presence has diminished. It is through this active and reflective use of technology that leaders and team members can assert a physical presence and listen to the technological cues of those they work with. Technology is an important a tool that can be used to communicate, build relationships, and complete tasks. It is an important sub-category for analysis as it is a means through which many tasks are completed and is the tool that facilitates virtual task completion.

Goals

Goals help to provide purpose and definition to tasks and efforts. They are deliberate plans that define what a team intends to accomplish.⁵⁹ Goal setting in all teams but particularly virtual teams is positively associated with cohesions, commitment, collaboration, decision quality, and the number of alternatives generated.⁶⁰ Goals can make clear team objective, outline members roles and responsibilities, specify how the team will function, establish feedback mechanisms and determine methods for performance evaluation.⁶¹ Goals that are well defined and articulated help to clarify expectations, focus activities and provide a framework for decision-making. Through identifying and developing specific, challenging goals and appropriate performance measures teams stay focused on their primary objectives.⁶²

The creation of goals is not an easy task and virtual teams have a difficult time developing and articulating a shared vision and goals. Many teams find it difficult to establish a unified sense of purpose with limited interpersonal and social interactions.⁶³ Each member of the team may recognize their own tasks but have limited appreciation for the macro organizational goals and how the individual or group efforts contribute to them. Goals are important for overall team performance and task completion and therefore successful virtual teams work

hard to ensure goals are established, monitored for progress and accomplished. Through the recognition and implementation of team goals and objectives virtual teams can unite is a shared purpose.

Communicating goals amongst team members is an important step and it can be done in many ways. It can be accomplished through the creation of a team charter, through a meeting that specifically identifies each goal, an organizational plan, or through a direct written document. No one process will work for every team but the more direct and explanatory the process the better. Clearly defined and communicated goals can help ensure that employees and leaders are clear on the macro and micro goals of the organization and their work unit. It can also ensure that each member of a team is clear on their specific and direct involvement in achieving the identified goals. Most teams do not take the time to plan how staff will work together to achieve organizational goals⁶⁴ and research suggests that once a goal is identified teams never stop to layout a plan or determine how team members will work with one another to achieve the identified goals. Teams that fail to establish a solid foundation for how goals are to be achieved and how teams are expected to work together are likely to encounter process loss along the way to achieving those goals.⁶⁵

Goals are an important step in task completion and provide purpose and definition to the tasks and efforts of team members. Goals are an important aspect of this analysis as they are a means by which a team defines their purpose and what tasks they will complete, in what manner and with who's help. They provide a framework to how the relationships between team members can be used to accomplish tasks.

Conclusion

Effective teams are built on a foundation of relationships, knowledge, information and experience exchange. This foundation ensures that tasks are completed by a network of individuals that together accomplish goals and meet expectations. This analysis of virtual teams used the body of literature available to provide context and understanding to virtual teams and their benefits and challenges with respect to relationships and task completion. The literature review was used to identify common issues, concerns, techniques and norms to help better understand which produce positive results in virtual teams and which do not. The categories identified in the conceptual framework and the questionnaire were developed from this literature review to identify principles, practices, and norms for implementations and changes that may improve operations in HRS West.

METHODOLOGY

Research Design

This research paper used a combination of primary and secondary research to accomplish its research objective. A review of the secondary literature on teams and virtual teams was completed to determine the advantages and disadvantages of the implementation of virtual teams in various public and private sector organizations. For this review relevant studies were identified through 1) a search of various electronic databases using a thorough list of relevant terms (e.g., virtual teams, e-leadership, trust, virtual communication; and 2) an overview of the bibliographic reference lists from the articles identified in the first method. Conducting secondary research was an important step in this analysis as it provided the context and background needed to undertake and design the primary research phase of this analysis of HRS West.

All staff of HRS West were chosen as targets for the primary research of this report. A web-based survey was designed that included questions from each sub-category of the conceptual framework. The single questionnaire distributed on January 29, 2010 included 27 closed questions that were rated on a six point likert scale, four closed critical incidence questions, and two active participation questions. Participants were provided a ten-day period to complete the questionnaire and were sent two reminders during this period to complete the questionnaire.

Sample

Questionnaires were sent to all employees in HRS West through an email invitation and web-based survey link. They were sent to all human resource specialties and geographical locations of staff, achieving a participation rate of 54%. The high participation rate indicates that employees are engaged in the issue of virtual teams and that they feel the undertaking of an analysis of current practices is important. The high participation rate also allowed for the opinions and experiences of many of the teams members to be included in the research findings.

Data Gathering Approaches

The sample group for this questionnaire consisted of all human resources specialties and geographical locations in HRS West. The questionnaire distributed to the respondents is attached as Appendix 1. Each of the employees included in the sample are engaged in virtual teams and/or leadership as part of their employment in HRS West.

The survey was distributed through an email invitation to all HRS West employees through an all staff email distribution list. The email contained an electronic link that directed employees to the questionnaire. All data collected for this analysis was gathered through electronic means and through the web-based survey link. There were no telephone or in-person interviews conducted and none of the sample group had contact with the investigator outside of the all staff emails.

The survey questions were categorized by the concepts and sub-categories identified for this research. Figure 4 depicts the categorization of the survey and its questions.

Figure 4. Concepts and Sub-categories Identified for Research

Relationships	Task Completion
Communication	Established Norms
Trust	Technology
Conflict Resolution	Goals
Leadership	

The questionnaire distributed sought both quantitative and qualitative responses from respondents and they were asked to rate relationship sub-categories, and task completion sub-categories on a six point likert scale consisting of Strongly Agree, Agree, Mildly Agree, Mildly Disagree, Disagree, and Strongly Disagree. They rated a series of set statements, each of which reflected a desired category of measurement identified in the conceptual framework for this analysis.

Respondents were asked 27 questions with this likert scale design and a minimum of three questions were included in each sub-category. The sample group was also asked four qualitative critical incidence questions. These questions were used to identify positive and negative experiences the sample had encountered in their virtual team in relation to task completion and relationships. To conclude the sample was asked two questions that sought to identify what members of the virtual team felt was most crucial to change to enhance relationships and task completion in HRS West. The questions were designed to identify specific tools, procedures, and policies the members of the virtual team would like to see implemented.

Method of Analysis

The results of the questionnaire were compiled and analyzed to identify where HRS West is succeeding and where there was dissatisfaction and therefore room for improvement. For each category of analysis, the mean responses and their standard deviation were calculated. The mean and standard deviation were used to offer a quantitative measure of the identified sub categories within

relationships and task completion. Satisfaction was also used in the quantitative analysis as an independent variable to determine how each of the dependent variables such as trust, and established norms correlated to respondents overall satisfaction level.

The responses were also categorized and analyzed against demographic information provided in the survey such as the overall satisfaction level by HR specialty and by the length of time they have worked in HRS West.

The qualitative data collected in the questionnaire was analyzed using a sort and categorize analysis technique to identify the most commonly recognized strengths and weaknesses within relationships and task completion in HRS West. The three most identified positive and negative responses were chosen for task completion and relationships, creating six categories for qualitative analysis. Each category is described and the responses are used to illustrate how employees understand and experience relationships and task completion on their teams.

The two final questions that requested suggestions for change to the HRS West team were sorted and categorized in the same way as the critical incidence questions with the suggestions coming from a combination of primary and secondary research.

FINDINGS

Fifty-one of the ninety-four HRS West employees approached for this survey provided responses, resulting in a 54% response rate. Respondents were asked to rate various questions on a six point likert scale and to respond to a series of six qualitative, open response questions. The quantitative and qualitative findings as they related to HRS West are discussed below.

Quantitative Analysis

The findings for the quantitative data are organized as per the conceptual framework of this analysis. The questionnaire and therefore the responses are organized with the same headings as the literature review: Communication, Trust, Conflict Resolution, Leadership, Established Norms, Technology, Team Goals and the independent variable of Satisfaction. Each section provides the mean response for the sub-category and the standard deviation from the mean. The findings provide a snapshot of the overall feelings of HRS West employees in each of the identified sub categories.

Communication

Communication was identified as a subcategory of relationships and was measured through four questions. It was defined by whether there were established norms of communication, whether members of the virtual team listened to one another and shared information. These indicators were used to determine how respondents felt about communication on their virtual team. Respondents of the questionnaire had a mean response of 4.81 and the responses were within one standard deviation from the mean; indicating that most respondents felt positive about communication on their virtual team. The quantitative data for this sub-category of responses can be found below in Figure 5.

Figure 5. Communication Average Responses

Mean	Standard Deviation	Valid Responses
4.81	.83	50

Trust

Trust was identified as a subcategory of relationships that respondents felt positively about, resulting in a mean response of 4.82 with a standard deviation of .67. Trust was measured and defined in this questionnaire by whether virtual teams trusted co-located and virtual colleagues equally, their ability to count on colleagues to accomplish tasks, and whether respondents felt they were trusted

by their virtual colleagues to complete their tasks. On the likert scale measurement used for this analysis trust measured the highest mean of the sub categories tested, indicating that staff feel positive about their ability to trust their virtual team. The quantitative data for this sub-category of responses can be found below in Figure 6.

Figure 6. Trust Results

Mean	Standard Deviation	Valid Responses
4.82	.67	50

Conflict Resolution

Conflict resolution was identified as an issue, with a mean response of 3.76, one of the lowest mean scores identified in this analysis. The standard deviation for this category was within 1 standard deviation from the mean, indicating that most of the responses from the sample were close to the mean response. Conflict resolution was defined for respondents by whether their virtual team had established norms of conflict resolution, their beliefs about whether colleagues speak negatively about one another, and the ability of team members to have open and honest discussion if conflict arises. The low mean score indicates that respondents do not believe their team is able to effectively employ conflict resolution amongst and between team members. The quantitative data for this sub-category of responses can be found below in Figure 7.

Figure 7. Conflict Resolution Results

Mean	Standard Deviation	Valid Responses
3.76	.88	47

Leadership

Leadership was explored with respondents through utilization of the LMX scale, a reliable measurement of leadership in organizational behaviour. Overall, respondents identified a mean response of 4.34 indicating they mildly agree that leadership is a positive aspect of their virtual team in HRS West. The leadership category, however, also had the highest standard deviation at .98. This indicates that there is greater deviation from the mean of 4.34 and a larger range of responses to this sub-category than any other. Leadership was defined and analyzed based on respondents confidence that they knew where they stood with their supervisor, that supervisors recognized their potential, understood their job problems and needs, and that respondents had confidence in their supervisor’s ability and decisions. The quantitative data for this sub-category of responses can be found below in Figure 8.

Figure 8. Leadership Results

Mean	Standard Deviation	Valid Responses
4.34	.98	44

Established Norms

Established norms were explored in relation to task completion with a mean response of 4.59. The responses indicate that questionnaire respondents feel more positive about the established norms that exist on their virtual team than they do about many of the other subcategories. The definition of established norms for the survey was identified through whether the team had established norms and procedures, whether staff knew what was expected of them, and whether they understood why their colleagues completed tasks as they did. A mean of 4.59 indicates that respondents feel that established norms and procedures exist, and that they understand what is expected of them. The quantitative data for this sub-category of responses can be found below in Figure 9.

Figure 9. Established Norm Results

Mean	Standard Deviation	Valid Responses
4.59	.68	44

Technology

Technology is an important tool for HRS West as a means to connect colleagues and is an important factor in task completion. It was identified in this survey by the sample as having a mean response of 3.56, the lowest mean score for this analysis. The responses indicate that respondents mildly disagree that they have the appropriate technology to complete their tasks. The analysis of technology was defined by whether there was technology available that would simplify their jobs that they did not have access to and if they felt they had the appropriate training and knowledge to use the technology they had access to. The quantitative data for this sub-category of responses can be found below in Figure 10.

Figure 10. Technology Results

Mean	Standard Deviation	Valid Responses
3.56	.75	43

Team Goals

Goals help to provide purpose and definition to tasks and efforts. They are deliberate plans that guide what a team intends to accomplish. Goals were defined in this analysis by whether respondents felt HRS West had clear goals, whether they understood how their tasks related to macro organizational goals and whether the goals and vision of HRS West were clear to them. The overall mean of respondents was 4.27 indicating that the goals of HRS West and the individual respondents role in achieving those goals were mildly appreciated by the sample. The standard deviation for this mean however is larger than many of the other responses indicating some variance in responses from this mean. The quantitative data for this sub-category of responses can be found below in Figure 11.

Figure 11. Goal Results

Mean	Standard Deviation	Valid Responses
4.27	.89	44

Satisfaction

Satisfaction was used as a dependent variable for this analysis in the subcategories of communication, conflict resolution, established norms and technology. Respondents were asked to rate overall satisfaction in each of these categories. As a dependent variable satisfaction can help measure if respondents are satisfied with the overall implementation of certain subcategories and in HRS West. Respondents identified a mean of 4.27 in their satisfaction levels. The quantitative data for this sub-category of responses can be found below in Table 12.

Figure 12. Satisfaction Results

Mean	Standard Deviation	Valid Responses
4.27	.72	41

The means for satisfaction, however, were different for the various specialty streams in HRS West. This difference is important as it indicates that some teams are substantially more satisfied than others. The satisfaction mean of the Labour Relations team, for example, was significantly lower than the mean of Resourcing, Administration, and Strategic Services. It identifies that members of the Labour Relations team are significantly less satisfied than their other colleagues in HRS West. The Administration team, on the other hand, had a significantly higher satisfaction mean than all other teams with a very low standard deviation, meaning that there is little deviation from this high mean of satisfaction amongst respondents in Administration. The quantitative data sorted by human resource specialty can be found below in Figure 13.

Figure 13. Satisfaction Results by Human Resource Specialty

HR Specialty	Mean	Standard Deviation	Valid Responses
Labour Relations	3.77	.75	11
Resourcing	4.38	.61	23
Strategic Services	4.13	1.24	2
Administration	4.9500	.27	5
Total	4.27	.72	41

Satisfaction as a dependent variable was also used to determine if respondents employed in HRS West for less than one year were more satisfied with current operations than those who had been employed longer than one year. The data from respondents showed that employees with > 1 year with HRS West were substantially more satisfied, with a mean of 4.51, than those who had been employed < 1 year with a mean of 4.10. It indicates that employees that joined HRS West within the last year are more satisfied than longer standing employees. The quantitative data for responses sorted by length of employment is below in Figure 14.

Figure 14. Satisfaction Results by Length of Time in HRS West

Length of Time in HRS West	Mean	Standard Deviation	Valid Responses
> 1 Year	4.51	.75	17
< 1 Year	4.10	.67	24

The quantitative data provided in this analysis is an important indicator of how employees of HRS West view, interpret, and feel about relationships and task completion. It provides insight into the state of affairs of HRS West and offers an opportunity to identify practices, policies, and procedures and to examine successful tools and techniques for optimal performance of HRS West.

Qualitative

The qualitative findings of this analysis are based on the open-ended questions asked in the HRS West questionnaire. The critical incidence questions requested respondents identify positive and negative experiences in HRS West, in relation to task completion and relationships. These experiences are helpful as an analytical tool in identifying what works and what does not in the implementation of virtual teams for HRS West from the perspective of its team members. The below findings are categorized under the headings of relationship and task completion exploring both the positive and negative experiences identified by respondents of the questionnaire. The responses were sorted and categorized to identify the three predominant positive and negative experiences identified. The categorized responses for relationships and task completion are below in Figure 15.

Figure 15. Categorized Responses from Qualitative Questions

	Positive	Negative
Relationships	Interpersonal Relationships	Communication with Leadership
	Face-to-Face Meeting of Virtual Team	Conflict Resolution
	Regular Communication	Communication
Tasks	Support of Virtual Team	Communication
	Leadership	Lack of Training
	Relationships with Clients	Technology

Relationships

Positive Relationship Experiences

To gain an understanding of what HRS West has already successfully contributed to relationships and their affects on virtual team implementation, respondents were asked to describe a positive relationship experience encountered in their team. The responses to this question were sorted and categorized, with the three most prevalent categories: interpersonal relationships, face-to-face meeting of virtual team members, and regular communication analyzed below.

1) *Interpersonal Relationships*

On the whole, interpersonal relationships with colleagues were identified by 26% of respondents as being the positive relationship based experience they have encountered in HRS West. The interpersonal relationship experiences that emerged in the study were comprised predominantly of colleagues helping one another and ensuring that regardless of location that all team members felt a contributing and valued member of their team. The expression by respondents of positive interpersonal relationships in HRS West is an indicator that the base for positive relationships is already present. A selection of quotes from respondents can be found below.

We all have many years of experience and know that collectively our knowledge and experience is awesome. We share with each other as we each have experience in different disciplines. We know we are stronger together.

Having team members say they feel as though they're working as part of a real team.

The members of our virtual team from another location sent me an unexpected card in the mail. It made my week!

2) Face-to-Face Meeting of Virtual Team Members

It is consistently addressed in the literature on virtual teams that initial face-to-face meetings of members are an important aspect of their ability to build successful team relationships.⁶⁶ Face –to-face contact even if it only occurs initially allows for more effective communication and gives a sense of personal contact and trust among team members. Twenty-three percent of respondents in HRS West identified meeting virtual colleagues as their positive relationship experience. They felt that it connected them to their virtual team members and helped build relationships. A selection of quotes from respondents can be found below.

Meeting in-person with one of my virtual colleagues has improved our working relationship.

After meeting members of my virtual team, I have noticed that the communication by phone became a lot stronger. We became more comfortable calling each other for advise and guidance.

3) Regular Communication

Communication is an important aspect of relationships as it is how a team shares information and builds and maintains relationships. It was identified in the questionnaire by 16% of respondents that regular and scheduled communication with their colleagues was their most positive relationship based experience in HRS West. The regular communication discussed by respondents was between colleagues, and not inclusive of leadership. Respondents identified that it allowed virtual team members to build and maintain respect and knowledge of one another. A selection of quotes from respondents can be found below.

We have set up weekly meetings where just the Consultants participate. We're able to share cases, brainstorm ideas and just catch up on what's going on in each of our regions.

Weekly, consultant only conference calls have helped me to get to know my virtual colleagues better, how they think and where they draw the line in the sand.

Our weekly Labour Relations Consultant calls allow us to come together each week, and work things out as a team, it is a open forum for us to discuss ongoing matters and to hash out challenges we encounter. I have really gotten to know the working and communication style of my team through these meetings. I have also come to respect the knowledge and guidance of my colleagues through this process.

Negative Relationship Experiences

In addition to the positive aspects of virtual team implementation in HRS West respondents were also asked to describe a negative relationship experience in their team. The responses to this question were categorized and the three most prevalent categories: communication with leadership, conflict resolution and communication, are discussed below as the top concerns and negative aspects of virtual team implementation in HRS West.

1) *Communication with Leadership*

Overall, communication with leadership was the most prevalent negative experience described by respondents. Twenty-six percent of the thirty individuals that provided specific examples described poor communication with their leadership as a concern. The poor communication with leadership has led to some employees feeling unsupported, undervalued, and at times confused about what is being asked of them. A selection of quotes from respondents can be found below.

I don't get any valued information from my manager.

On a conference call a colleague was called out by the manager in front of others - I didn't say anything nor did anyone else. I am sure our colleague did not feel supported. I know I felt guilty for not stepping up.

Often times we receive direction from our supervisor via e-mail, and her e-mails are so short and unclear that we are not sure what she is talking about or what she is asking us to do, so when this happens, my colleagues and I have impromptu meetings to try to "figure out what she is asking or requesting". We have these meeting because everyone is too scared to ask her what she is talking about.

You really feel out of touch and management doesn't know what work you are doing. If they don't hear from you, it is assumed all is well and fine. Also, difficult to get any recognition from these people that don't see your day to day accomplishments.

2) *Conflict Resolution*

Conflict resolution along with being an important quantitative measure identified in the questionnaire was also described by 16% of respondents as a negative relationship experience in HRS West. Respondents described conflicts as difficult to resolve and discuss with their virtual colleagues and found the conflicts led to perceptions of unequal workload amongst team members and had a negative affect on team commitment.

I find trying to resolve a conflict situation difficult especially with team members, if I haven't had a chance to build the in-person rapport with them. Therefore when I disagree, I find it hard to carryout that discussion because I need to have an idea of the other person's expressions and body language to totally be myself.

A colleague attempted to undermine me by going around me for information.

Conflict with members is difficult to address, and leads to perceptions of unequal workload, team contribution or commitment.

3) Communication

Communication connects teams and individuals to one another. It keeps information flowing, tasks completed, knowledge relayed, and relationships built. Communication was identified by 13% of questionnaire respondents as a negative relationship experience in their virtual team. Respondents identified and described that they didn't feel communication was equal between all members of HRS West and that they did not feel they were made aware of important issues that could affect their work.

I do not believe that information is communicated amongst the various disciplines the same way at the same time - causing issues.

Not knowing when a co-worker is away.

Task Completion

Positive Task Completion Experiences

To gain an understanding of what HRS West was had already successfully contributed to task completion, respondents were asked to describe a positive task related experience they have encountered on their team. The 26 responses to this question were categorized and the three most prevalent categories: support from team members, leadership and relationships with clients are discussed below.

1) Support of Team Members

An overwhelming 42% of respondents described their positive task related experience as being comprised of the support they received from their virtual team members to complete a task. The responses indicated that respondents to the questionnaire feel well supported by their colleagues when completing tasks and are comfortable requesting and utilizing assistance from virtual colleagues. A selection of quotes is below.

I had support from colleagues to complete a project in a collapsed timeframe.

The willingness of each person to help and assist has been very positive.

Having a lot of support and knowledge among my colleagues to assist me in completing tasks.

My colleagues have been wonderful in sharing their lessons learned on different tasks, and just listening to my situations and offering suggestions on how I might proceed. It's great to have a work environment where we can collaborate and use the collective knowledge and expertise of the unit to perform our tasks to the best of our abilities.

2) Leadership

Eleven percent of respondents identified their positive task related experiences as being connected to their leadership. Leadership, particularly in virtual teams, can be the connection between colleagues and the manner in which tasks are distributed and performance is managed. A positive view on leadership's role in task completion indicates that some respondents feel appropriately supported by leadership when completing tasks for HRS West.

Support from my team leader. For example when I have a question and need clarification, she is a great resource and source of excellent information in the expertise area of staffing.

I can work easily without supervisor.

Team members treated equally regardless of physical proximity to Management.

3) Relationships with Clients

HRS West is responsible for providing human resource services to all Service Canada business lines in Western Canada. The relationships that HRS West staff are able to build with their clients are important to meet operational goals and build credibility with their client base. Eleven percent of respondents identified their relationships with their clients as being their positive task related experience in HRS West. It indicates that some respondents receive their positive task related experiences external to their virtual team and that some of these relationships and tasks can be just as or more meaningful than ones experience internally.

I work very closely with my business line managers. I can often anticipate their next question and I pride myself on providing great service. Working virtually works for my clients and I.

I have great communication with my business lines, which help me a lot in establishing priorities in my work.

Meeting established turn around times to ensure our clients are getting paid in a timely fashion.

Negative Task Completion Experiences

In addition to the positive aspects of virtual team implementation in HRS West respondents were also asked to describe a negative task related experience in their team. The 27 responses to this question were categorized and the three most prevalent categories: Communication, training and technology are discussed below.

1) Communication

Communication connects teams and individuals to one another. It keeps information flowing, tasks completed, knowledge relayed, and relationships built. It can also be a great challenge to execute successfully in virtual teams and was identified as the top negative experience category for task completion. Twenty-five percent of respondents described a negative task completion experience that involved communication. A selection of quotes from respondents depicting a negative task related experience is below.

Information not communicated with me or with my co-workers, resulting in task not being accomplished properly and wasting lots of time.

Not having the same "casual contact" with my work team to discuss questions, workload, or even coffee.

I have had to follow up with other HRS members to try to get a task completed. When someone is off site it can be hard to get them to provide you with the information you are looking for. I have even had experiences where no one gets back to me on time.

2) Training

Eighteen percent of respondents identified training as a having a negative affect on their task related experiences in their virtual team. Respondents identified a lack of training for staff members and felt that employees were unprepared and sometimes unable to use technology to its full capacity due to their lack of training and knowledge. A selection of quotes can be found below.

...not enough trained people.

Not being able to register for training courses that are required or would assist me in my role.

Not enough training given.

I lack understanding of the CMS program. The books I have access to make little sense and I have received no training of this program.

When providing a Web-Ex session, the commencement of the session was delayed due to my unfamiliarity with Web-Ex. Not only was I embarrassed but I wasted many people's time as they waited for the situation to be resolved.

3) Technology

Technology is used to communicate and help virtual teams complete tasks. It is with the aid of technology that the majority of HRS West's communication takes place between team members and leadership. Technology along with having powers to connect those at a geographical distance is also considered a primary barrier to virtual team implementation.⁶⁷ Fourteen percent of respondents identified a negative experience with technology that affected their ability to complete their tasks.

During our all staff videoconference meeting there was a technical problem with hooking people up to the teleconference and we had to wait about 15 minutes before the meeting could start. It was unfortunate because all of HRS West was there, including our Director. It turned out that the person who booked the videoconference booked the morning session of our meeting, but forgot to book the videoconference for the afternoon. There have actually been several incidents where a videoconference or teleconference was not booked properly and we all sat around waiting.

Not having access to make changes to the BAT Procedures for Managers website has been challenging. We've had great support from within HRSB West, but it would make my job a lot easier if I also had access.

Need computer software updates.

Conclusion

The findings of the questionnaire provide quantitative and qualitative information that can assist HRS West in identifying successful tools, techniques, and implementation for optimal performance. It has assisted HRS West in identifying from employees perspective what works and what does not work in the implementation and organization of their virtual teams. It identified areas of success and areas where opportunities for improvement exist that can help ensure that relationships are supported and tasks are completed efficiently and

effectively.

DISCUSSION

As previously noted, this research strived to provide an in depth analysis of the successes and opportunities for change in HRS West, along with recommendations for improvement in moving forward to maximize relationships and task completion. The concepts of relationships and task completion were chosen for analysis as they have been used as frameworks in past research conducted on virtual teams.⁶⁸ The following section will provide a discussion of both the qualitative and quantitative findings of this analysis.

Overall, the results of this study suggest that employees in HRS West see opportunities for change to the current practices and procedures for conflict resolution, technology and communication with their leadership. However it also indicates that employees are satisfied with the amount of trust and the interpersonal relationships they share among their team members.

This study has important implications for HRS West as it was able to identify areas of success and areas of concern from the perspective of employees. It identified conflict resolution in both the quantitative and qualitative data as a serious issue that respondents do not feel has been appropriately addressed in their virtual team. Respondents identified low levels of satisfaction in this category and a mean response of 3.76; this signifies they do not feel that current practices are sufficient to meet their team's conflict resolution needs. The findings are consistent with the literature, which suggests that virtual teams have difficulty dealing with and resolving conflict due to role, task, and responsibility ambiguity coupled with limited face-to-face interaction.⁶⁹ HRS West however, is in an advantageous position because employees identified in the qualitative analysis that the interpersonal relationships amongst colleagues are strong. These strong relationships can make the transition to solid conflict resolution principles easier to attain and employ because employees already have a relationship base from which to build.

As discussed above the qualitative responses for this research displayed overwhelmingly that the interpersonal relationships shared amongst colleagues of HRS West are meaningful and appreciated. Respondents identified their relationships and the support they receive from colleagues as important and of great value in their ability to complete tasks. The high quality of interpersonal relationships in HRS West is also supported empirically by the high mean rating of trust amongst respondents. Past research on virtual teams suggests that groups that have positive interpersonal relationships have more satisfied members and greater perceived levels of effectiveness and that relationships benefit team performance and are crucial for communication, trust, conflict resolution, and leadership.⁷⁰ The positive responses provided by respondents are a great success for HRS West as virtual teams, in particular, can serve as

weak platforms for interpersonal interactions and relationships. HRS West should be proud of the interpersonal relationships it has helped to foster amongst its geographically dispersed teams.

The investigation of relationships in HRS West also showed interesting results regarding respondent's perception of leadership. Although respondents identified in the qualitative data that they did not feel communication with leadership was adequate they also provided leadership with a high mean score of 4.43 in the quantitative measures for this analysis. This is important to highlight, as the measures used for leadership were arguably the most valid statistical measures employed in this study. The leadership section of the questionnaire was established using the Leadership-Member Exchange Theory (LMX), a measure used by various researchers in the literature on teams and leadership theory.⁷¹ LMX is a relationship-based approach to understanding leadership and measures trust, respect and obligation between employees and their leaders in their working relationships.⁷² These measures indicate that respondents respect and trust their leaders but would like them to take steps towards enriching the communication with their employees.

In regards to task completion, the data identified technology as an area of concern for respondents in both the qualitative and quantitative sections of analysis. Respondents identified that they encounter technological issues when trying to connect with colleagues and that they do not have the sufficient training and knowledge to appropriately use the technologies they have. These are common complaints of virtual teams in the literature.⁷³ However the data collected from HRS West identified that the issues surrounding technology are more often a reflection of communication practices and a lack of training or understanding of the technology, rather than the technology itself. It suggests that gaps exist in the training, and establishment of norms that surround HRS West's use of technology. Respondents to the survey identified that they require more training on the technologies available and a desire for enhanced access to programs for more efficient and effective task completion. This suggested issue is of great value for HRS West as the complaints staff may have about technology are predominantly related to access and training rather than a desire for new and improved systems and software. It means that any steps taken to resolve their concerns are less expensive and complicated to remedy.

A further point for consideration and discussion on the findings of this research is that the information collected for this analysis provided seemingly conflicting information on communication. The quantitative data reported a mean for communication of 4.8, one of the highest mean scores for the analysis. It suggested that respondents felt that HRS West has established norms of communication and that team members listen and share information with another. The likert scale questions however, did not ask respondents to rate communication with their leadership, which may explain why this information emerged in the qualitative findings. The qualitative information collected

highlighted communication with leadership as one of the most prevalent areas of negative experiences in HRS West. Respondents identified their communication with leadership as lacking and some felt they were getting little value added information, at times not enough information, and that leadership was not communicating recognition for a job well done. It is consistent with the research that indicates many virtual leaders do not actively communicate with their staff.⁷⁴ The literature suggests that successful virtual leaders go beyond an 'open door' policy and actively communicate with employees on a regular and scheduled basis. Respondents suggested that this active communication with virtual leaders is not present in HRS West. The frequency of communication between a leader and their team has a curvilinear relationship with virtual team performance⁷⁵ and therefore the findings of this research importantly suggest that virtual leaders in HRS West may need to take a more active and engaged role in communicating with staff for effective and efficient communication between HR specialties and geographic locations.

A final point for discussion is the varying levels of satisfaction that emerged between demographics in HRS West. The level of satisfaction that is experienced amongst the disciplines in HRS West varies greatly. Labor Relations showcased a statistically significant lower level of satisfaction than any other HR specialty. It should highlight for HRS West that not all team members are experiencing things in the same way. It is invaluable information as it shows that the teams in HRS West may have tools, techniques and practices to share with one another to increase satisfaction, relationships, and enhance task completion amongst the disciplines. It may be a value added exercise to have the leaders and supervisors of all HRS West teams share best practices with one another to increase the overall satisfaction of HRS West employees with ideas and tools that are already employed, working, and reliable for the type of work HRS West performs and is responsible for. The data also revealed that employees that have been with HRS West for more than one year are less satisfied than new employees to the branch. This is interesting as it suggests that HRS West is struggling to keep engagement and job satisfaction amongst its employees. On the other hand it may indicate that younger employees are more comfortable with virtual teams and leadership than older, more experienced employees.

The next section will highlight the specific recommendations that have arisen throughout the discussion and results of this research study.

RECOMMENDATIONS

Based on the primary and secondary analysis several key recommendations can be made. The recommendations are based on the most common recommendations from HRS West employees themselves with complimentary information from the literature on specific and tangible ways to apply the recommendations made by HRS West employees. In the questionnaires distributed respondents were asked for relationships and task completion to identify the single most important change that could be made to improve their team. The recommendations are categorized into relationships and task completion and discuss the most common responses. Figure 16 below provides an overview of the recommendations for both relationships and task completion.

Figure 16. Recommendations

Relationship Recommendations	Task Completion Recommendations
1) Take steps to improve communication to enrich relationships	1) Increase the amount of direct and applicable training HRS West employees receive
2) Use ‘face-to-face’ meetings to establish and maintain relationships	2) Take steps to establish clear and defined norms that can guide task completion in HRS West.
3) Improve access and support provided by leadership and supervisors	3) Move towards having equally distributed administrative support across HRS West

Relationships

Recommendation #1: Take steps to improve Communication to enrich relationships in HRS West.

Respondents overwhelmingly identified that enhanced communication was an important change that could enrich relationships in HRS West. Twenty-six percent of respondents identified this as the most important change that could be implemented. They identified that colleagues need to feel more comfortable to pick up the phone and call one another, that communication should be more timely and consistent and that it needs to be open and bring clarity to the roles of team members. The literature on virtual teams makes meaningful suggestions for enhancing communication that based on the research could be of value for implementation in HRS West.

- Creation of a Transactive Memory System (TMS) that represents the collective knowledge acquired and retrieved over time. The presence of a TMS allows team members to have constant and uninhibited access to shared knowledge.⁷⁶ A TMS can be created, updated and maintained through shared electronic access drives, web-boards, or collaborative wiki websites. A TMS can help organizations maintain historical knowledge, organizational context, and past outcomes.
- Creation of online discussion threads that allow for the history of conversations and idea generation to be saved. It allows team members to share ideas, strategies and comment on each other's ideas. It is particularly useful for new employees who may not know what idea generation has or has not taken place. A web board is a common application for online discussion threads and the Treasury Board of Canada has a no charge web board that has been created for departmental use that is secure and user friendly.
- Creation of communication norms that include what information should be shared with team members, how often, in what format comments are to be made on shared documents (i.e. show comments in Microsoft Word, etc), how to inform team members of individual whereabouts, and etiquette for electronic communication (eom for end of message, capitals for urgency).⁷⁷ These norms of communication should be shared with the entire group and be reviewed regularly.

Recommendation #2: Use 'Face-to-Face' meetings to establish and maintain relationships.

Respondents identified that they would like more frequent in person meetings to improve relationships. They indicated that face-to-face meetings allowed them to obtain a better understanding of their colleagues and that this understanding improved their working relationships. The suggested time frames between meetings varied greatly with one respondent requesting meetings at least every quarter and another only once a year. It is recognized in the literature that in-person meetings are of great value to virtual teams but that they also come at significant financial costs to the organization. The responses identified that face-to-face time was a part of the team's ability to build relationships and outside of recommending annual face-to-face meetings this recommendation is focused on enhancing the ability of virtual team members to build relationships through encouraging the social interaction that takes place at face-to-face meetings and training.

- The use of an Instant Messenger as a tool has proved to be an integral mechanism to enhance cohesiveness and team-ness, through monitoring who is in and who is out. It also provides an opportunity for social and informal interaction between team members.
- Beginning team meetings with a social round table or virtual coffee break can increase socialization and build relationships amongst team members. Socialization builds trust and can bind team members.⁷⁸
- A database of expertise for each employee available electronically. It can include a photo and a short overview of areas of expertise and experience of each staff member. This database can allow employees to better understand where their colleagues are coming from and where they may be of value in projects and tasks.⁷⁹

Recommendation #3: Improve access and support provided by leaders and supervisors.

It was identified by respondents that there were improvements that could be made to the leadership team that would be of value to the relationships amongst HRS West employees. One respondent pointedly stated “We need strong leaders for virtual teams to work.” It indicates that some respondents feel that something is missing from the leadership team that is affecting relationships in HRS West. Leaders are a part of taking the relationships amongst organizational members and enhancing them and their ability to perform tasks and create outputs and a lack of effective leadership can alter team relationships and overall performance.

- Train and prepare current and future leaders to cope with and manage the unique realities of virtual leadership. Current research indicates that very few organizations have implemented specialized training programs to prepare virtual leaders and team members.⁸⁰
- Leaders should frequently initiate contact and communication with individual team members and the group. This can be accomplished with reoccurring scheduled meetings, weekly calls, or email check in.
- Creation of chat rooms or web forums to solicit information from team members in an interactive forum that saves the dialogue. As a tool it is helpful if it provides a function to allow for anonymous input.
- Creation of standard 360-degree feedback form available for leaders to distribute to staff. This can allow for leaders to take stock of how their staff are feeling and what they may require for optimal performance.

Task Completion

Recommendation #1: Increase the amount of direct and applicable training employees in HRS West receive to enhance their overall task completion abilities.

Respondents identified that training on available technology and the functions of their duties was an issue that affected their ability to complete tasks. One respondent stated “Actual in person training for some of the programs we use, as it is very difficult to ask questions in an on-line training session.” Another respondent identified that they wanted to get “the training required for the position.”

- Providing each new or learning staff member with a ‘learning buddy’ can be a useful way to ensure that they have an opportunity to ask questions resulting from on-line training sessions and things that arise in the learning process.

- Inform staff of the benefits and functions of all new technology. It can decrease skepticism and lessen resistance to the technology when people understand its value and how to use it.⁸¹
- Ensure each staff member has a well-developed learning plan that identifies what training is required for their job, both formal and informal, with concrete goals for achievement.

Recommendation #2: Take steps to establish clear and defined norms that can guide task completion in HRS West.

The establishment of clear and defined norms is important, as norms provide a formal structure that facilitates the ‘how’ of task completion. They are established to facilitate group survival, to simplify and make predictable group behaviour, to avoid interpersonal issues and to express the central values of a team. Respondents identified that there were not clear and defined norms for their team which left one respondent feeling like they had to figure things out on their own amongst unclear direction and resources. Based on the research the most effective norms to establish for virtual teams dictate communication, conflict resolution techniques, the use of technology, and how team goals and tasks are to be established and accomplished.⁸²

- Leaders and team members can construct an established mechanism for providing and receiving feedback. This can help to avoid conflict, and streamline task completion.
- Clarification of role and task expectations to reduce conflict amongst team members.
- Establishment of a team charter that details how often performance and learning agreements will be completed, the norms of communication and the responsibilities of both HRS West and its employees to one another.

Recommendation #3: equally distributed Administrative Support

It was identified by respondents in the research that some feel they have inadequate or unequally geographically distributed administrative support. This lack of administrative support led to HR consultants feeling they spend more time on administrative tasks and less time providing strategic advice to clients. The lack of support has also led to consultants engaging in time-consuming workload management issues, and encountering great difficulties in being supported by the administrative team virtually.

- An equal per capita distribution of Administrative support in all four locations that HRS West is present.
- Enhanced support available for file transferring to stop the delays created by mail. This could be accomplished through more on-line file management and the scanning of time sensitive documents.
- Integration of the administrative team with the other HR disciplines through participation in meetings, virtual coffee breaks, etc.

CONCLUSION

This study has provided an analysis of the implementation of virtual teams in HRS West. The primary motive for the research, to examine successful tools, techniques, and implementation for optimal performance, was accomplished. Prior to this study no formal evaluation on the implementation of virtual teams in HRS West had been conducted. This study and its recommendations offer an opportunity for HRS West to identify what it has accomplished to date and to provide a clear vision of possible next steps in virtual team implementation and maintenance.

This research has hopefully assisted HRS West in identifying what is working and what is not working in the implementation and organization of its virtual team. It identified successes, such as interpersonal relationships and trust amongst team members and opportunities for improvement, in the areas of conflict resolution, technology and communication with leadership. These opportunities for improvement and recommendations can be used and implemented in various ways by HRS West to ensure that relationships are supported and tasks are completed as efficiently and effectively as possible.

Beyond providing in-depth information for HRS West this research also provides a contribution to the literature on virtual teams as their implementation in the public sector to my knowledge has been scarcely written about. The public sector faces unique challenges and opportunities in virtual team implementation that deserve more attention, as its growth is inevitable and this research is part of expanding the literature and data on public sector virtual teams.

This paper examined the current academic literature on virtual teams and highlighted the main theories and trends in relationships and task completion. The paper then discussed the methodology that was utilized for both the primary and secondary research and the key findings were summarized and then used to provide an overall assessment of the effectiveness of virtual teams in HRS West. The paper concluded with recommendations of next steps for HRS West based on the recommendations and data provided by staff of HRS West.

HRS West has an active role to play in furthering its virtual teams. Respondents identified areas of success and areas of concern that require action for overall relationships and task completion success. Further to this research an analysis should be conducted in one to three year's time to monitor progress and to identify current best practices and areas for improvement.

Appendix 1

The purpose of this questionnaire is to examine virtual teams and management in Human Resource Services (HRS) West. This questionnaire will ask you about certain characteristics of your job. The information you provide will be used to identify organizational strengths as well as areas of concern in an attempt to create a better working environment. In particular, your responses will provide necessary information to help guide any changes that may be made within your working environment. Your participation is therefore very important to the outcome of the study.

This survey is anonymous, confidential, and voluntary. You can refuse to answer any questions you are uncomfortable with. Whether you participate or choose not to participate will have no bearing on your employment status. Please be assured that all information provided by you will be kept STRICTLY CONFIDENTIAL. You are not required to identify yourself by name anywhere in the questionnaire.

Below are some statements that you might agree or disagree with. Please write a number in the blank beside each statement, based on the scale given. There are no right or wrong answers, only how you feel personally about the statements. This information can and will not be used to identify you.

1	2	3	4	5	6
Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree

Relationships:

Communication

1. _____ The virtual team that I work in has established norms of communication
2. _____ The members of my team listen to one another
3. _____ As a team, we share information and knowledge with each other.
4. _____ I am satisfied with communication on my team

Trust

5. _____ I trust my virtual colleagues and co-located colleagues equally.
6. _____ I can count on the members of my team to complete their tasks.
7. _____ I am confident that my virtual colleagues trust my ability to complete my tasks.
8. _____

Conflict Resolution

9. _____ The virtual team that I work in has established conflict resolution principles and/or practices.
10. _____ I am satisfied with how conflicts are resolved on my team.
11. _____ Some team members talk negatively about other members when they are not present.
12. _____ When conflict arises on my team I discuss my feelings open and honestly with all involved.

Leadership

13. ___ I know where I stand with my supervisor
14. ___ My supervisor understands my job problems and needs.
15. ___ My supervisor recognizes my potential.
16. ___ My supervisor would use his/her power to help me solve problems in my work?
17. ___ My supervisor would “bail me out” or “cover for me, at his or her expense?”
18. ___ I have enough confidence in my supervisor that I would defend and justify his/her decision if he/she were not present to do so?
19. ___ I would characterize my working relationship with my leader as excellent.

Please use the space provided to answer the following questions.

20. Describe a positive relationship experience that you had had in your virtual team.

21. Describe a negative relationship experience that you have had in your virtual team.

22. The single most important change that could be made to improve relationships on your virtual team is...

Task Completion

Established Norms

23. _____ The virtual team I work with has establish norms and practices.
24. _____ I know how my work is to be completed and what is expected of me.
25. _____ I understand why my colleagues complete tasks as they do.

Technology

26. _____ I am satisfied that I have the technology I need to perform my daily duties.
27. _____ There is technology that would make my job more efficient that I currently do not have access to.
28. _____ I am trained and/or knowledgeable on all the technology that I am expected to use.

Team Goals

29. _____ My team has clearly defined goals.
30. _____ I understand how my duties relate to larger organizations goals.
31. _____ The goal and vision of HRS West is clear to me.

Please use the space provided to answer the following questions.

32. Describe a positive experience related to your ability to accomplish a task.

33. Describe a negative experience related to your ability to accomplish a task .

34. The single most important change that you would recommend to help you complete your tasks is...

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