Leadership Challenges In Virtual Team Environment

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Abstract: We summarized other researchers work and summarized some challenges in virtual teams. Due to the time and resource limitation, although we covered the common challenges in a virtual environment; we might still miss some. Virtual leaders need to notice that those challenges are interrelated with each other. It's not wise to just focus on some of them and ignore others. Getting familiar with the relationships among those challenges and how they affect each other will be very helpful for leadership effectiveness in virtual teams. Team leaders will need more training, specifically in delegation. Given that, team members need to be able to share leadership responsibilities and training programs ought to be developed in recognition and support of that. A contribution to this problem is that few companies have extensive expertise in how to operate and engage in virtual teams, and they create them without understanding how they differ from regular team.

Index Terms: Virtual team, TELM, e-leadership, challenges, geography and isolation, communication, technologies, motivation, security, trust, and relationship.

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1 INTRODUCTION

As information technology becomes more pervasive, the structure of the traditional work environment is changing. A number of alternatives are emerging where work is performed at remote locations. Existing work practices and managerial strategies are often not appropriate in this environment [1]. Managers are challenged to develop strategically flexible organizations in response to increasingly competitive marketplaces. Fortunately, a new generation of information and telecommunication technology provides the foundation for resilient new organizational forms that would have not been feasible only a decade ago. One of the most exciting of these new forms, the virtual team, enable organizations to become more flexible by providing the impressive productivity of team-based designs in environments where teamwork would have once been impossible. Virtual teams are groups of geographically and/or organizationally dispersed coworkers that are assembled using a combination of telecommunications and information technologies to accomplish an organizational task. With the movement toward the global marketplace and the resultant globalization, virtual teams become more and more common in many organizations. Virtual teams will enable organizations to become more flexible by providing the impressive productivity of team-based designs in environments where teamwork would have once been impossible [2]. With the movement toward the global marketplace and the globalization, virtual teams will become more and more common in many organizations.

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Virtual teams are linked primarily through advanced computer and telecommunications technologies. They provide a potent response to the challenges associated with today's downsized and lean organizations, and to the resulting geographical dispersion of essential employees. Virtual teams also address new workforce demographics, where the best employees may be located anywhere the world, and where workers demand increasing technological sophistication and personal flexibility. With virtual teams, organizations can build teams with optimum membership while retaining the advantages of flat organizational structure. Additionally, firms benefit from virtual teams through access to previously unavailable expertise, enhanced cross-functional interaction, and the use of systems that improve the quality of the virtual team's work [2]. As virtual teams are becoming popular, leaders need to consider the new challenges come with the new form of team and how to lead the team effectively. As stated by [3], many leaders use TELM (Team Effectiveness Leadership Model). Leader's main job is to determine what needs the team is faced with and then take care of them. This also requires us to think about leadership not as a function of the leader and his or her characteristic but as a function of the team. For [4], team effectiveness is the underlying driver. Leadership is a process that involves the interactions with followers and situations. So is the leadership in a virtual team. But in a virtual team, a lot of things are different from the traditional face-to-face team. Many challenges also arise in front of the virtual leaders. In order to successfully lead their teams, virtual leaders need to know those challenges and how they will affect the leadership effectiveness. As virtual teams become popular, leaders are facing new challenges different from leading traditional face-to-face teams. In order to effectively lead their teams, leaders need to be familiar with those challenges and how they affect each other. The purpose of this paper is to describe common challenges faced by leaders in a virtual team environment such as the following: geography and isolation, communication, technologies, motivation, security, trust, and relationship.

2 VIRTUAL TEAMS

Virtual teams are groups of geographically and/or organizationally dispersed coworkers that are assembled using a combination of telecommunications and information technologies to accomplish an organizational task. Virtual teams rarely, if ever, meet in a face-to-face setting. They may

be set up as temporary structures, existing only to accomplish a specific task, or may be more permanent structures, used to address ongoing issues, such as strategic planning. Further, membership is often fluid, evolving according to changing task requirements [2]. According to [5] and [6], a virtual team is also known as a geographically dispersed team, distributed team, or remote team and usually refers to a group of individuals who work together from different geographic locations and rely on communication technology such as email, FAX, and video or voice conferencing services in order to collaborate. The term can also refer to groups or teams that work together asynchronously or across organizational levels. For [7], virtual teams can be defined as "groups of geographically, organizationally and/or time dispersed workers brought together by information and telecommunication technologies to accomplish one or more organizational tasks. For [8], virtual teams can also be defined as "small temporary groups of geographically, organizationally and/or time dispersed knowledge workers who coordinate their work predominantly with electronic information and communication technologies in order to accomplish one or more organization tasks. Members of virtual teams communicate electronically and may never meet face-to-face. Virtual teams are made possible by a proliferation of fiber optic technology that has significantly increased the scope of off-site communication. Virtual teams allow companies to procure the best talent without geographical restrictions [9]. According to [10], virtual teams require new ways of working across boundaries through systems, processes, technology, and people, which requires effective leadership... despite the widespread increase in virtual teamwork, there has been relatively little focus on the role of virtual team leaders.

3 LEADERSHIP IN VIRTUAL TEAMS

In virtual teams, the leadership roles and functions are necessary to improve the team's performance and success. Generally, leaders should enhance their team effectiveness. They also need to guarantee that the social and material resources of their members are met so that team members can achieve their goals successfully. Based on these necessities, [11] proposed three main responsibilities for all leaders: team liaison, team direction setter and team operational coordinator. Team liaison refers to the ability of leaders to scrutinize and search the events that occur whenever teams perform their tasks. Leaders, as team direction setters, should define the goals of their teams clearly. Also, leaders, as team operational coordinators, need to provide essential resources for their team's specific tasks. In their virtual work environments, e-leaders need to find out what critical issues may affect the teams' performance. They should also set the goals and visions of their teams. Moreover, they are also expected to coordinate the functions of their teams. Hence, e-leaders perform as team liaison, team direction setter and team operational coordinator. [12] considered performance management and team development as two further fundamental functions of e-leaders. They suggest, as noted previously, that in order to achieve a good performance in virtual teams, e-leaders should set the goals and visions, stipulate the direction of all tasks for all members and establish routines and habitual meetings and standard operating procedures clearly. Additionally, in order to develop virtual teams, e-leaders have to create opportunities for building trust among all team members and encourage

incentives through providing the recognition for success. Team leaders are facilitators. They help with goal setting and actively seek input from all team members. They are responsible for holding and conducting meetings and producing careful reports that keep everyone informed [13]. More requirements needed for leaders in global virtual teams. They must also develop a global mindset or cross-cultural competence [13]. They are more than the facilitators; they are also innovators, brokers, producers, directors, coordinators, monitors, and mentors [14]. Leaders play an important role in virtual teams. They are often the nexus of the team, facilitating communications, establishing team processes, and taking responsibility for task completion. Because technology is the crucial and ever-present link between virtual team members, team leaders must be able to manage it skillfully [15]. The role of virtual team leaders entails a different level of skill than that of traditional collocated team leaders. Not only must virtual team leaders manage the project tasks and occasional personality conflicts normally associated with a collocated team, but they must also be able to create common cause among geographically distributed, and often organizationally and culturally different, individuals. Because virtual teamwork is a relatively new phenomenon, organizations and team leaders have relatively little experience in this area [15].

4 COMMON CHALLENGES FOR LEADERS IN A VIRTUAL TEAM ENVIRONMENT

In the process of developing virtual teams, e-leaders usually face several challenges that necessitate some new skills in leading virtual teams in comparison with the conventional teams. Behind those challenges, we focused on the leadership effectiveness. After all, today's most teams are result oriented. Our purpose is to give people a general idea that when L-F-S framework changes, as virtual team leaders, what they will be facing and what they can possibly do to react and achieve the effectiveness. Researchers have identified seven common challenges that leaders encounter in virtual teams.

4.1 Geography and Isolation as Challenges

Geography makes the team members see themselves as separate from one another. The complications of time zones and travel pressures make it even more challenging to ensure team members clearly comprehend goals and begin to develop a bond of trust and understanding among one another [13]. Lack of physical interaction is one of the major challenges of virtual teams. When feeling isolation and detachment, virtual team members will be less productive and satisfied than people working face-to-face. A specific challenge for virtual team leaders that does not confront face-to-face team leaders is overcoming member feelings of isolation [16]. For virtual teams, the information technology plays the role of communication. Members are located separately by many miles or even continents. So, members of virtual teams rarely interact in traditional face-to-face styles. Instead, information technologies such as email, telephone, and video conferencing are the major ways for them to communicate with each other. Leaders must be aware of the challenges come from the technical issues. Geography and isolation lead to another challenge at the input level. Another problem unique to virtual teams is that of differing time zones. A part of the team on one side of the world may be asleep during another part's normal workday, and the group has to work around this. Asynchronous communication tends to be more

difficult to manage and requires much greater coordination than synchronous communication [17]. In their research focused on one company's large number of virtual teams, [16] found the lack of social and physical interaction resulted in feelings of isolation and alienation in some team members. Team members noted that they "get left out of a lot of things" and they "don't have as many people to network with on issues or successes" (p. 73). Managers of these teams misinterpreted team member behaviors such as less frequent contact as an indication that all was well, only to learn later that some behaviors in virtual teams should not be interpreted consistently as those same behaviors on conventional teams. The company has identified isolation in these virtual teams as a challenge and implemented countermeasures to help reduce these feelings and increase job satisfaction and productivity. For instance, the company uses team building and training expectations to reduce feelings of isolation in virtual team members. In their study, [18] surveyed 572 pharmaceutical salespeople working in the United States and had several noteworthy findings based on the 344 responses that were coded and analyzed. They found that team members with high self-efficacy were less likely to experience workplace isolation, while at the same time, "less efficacious salespeople are likely to be worried by work challenges and to feel abandoned" (p. 916). Another significant finding was that the frequency of face-to-face meetings did not significantly impact feelings of workplace isolation. The authors question if this finding might be related to role acceptance of both the limited face-to-face interaction as well as the increase in virtual communication tools such as instant messaging and video conferencing. The study noted that individuals with high self-efficacy were less likely to feel isolated, and workers who felt less isolated were more likely to voluntarily go beyond their narrowly defined responsibilities and less likely to leave.

4.2 Communication as Challenge

One major challenge within the virtual environment is communication. Virtual teams are greatly influenced by the effectiveness of communication, says [19] in their article, "Virtual Team Interaction". Even within a face-to-face correspondence, communication is highly important. Without it, the group cannot accomplish the tasks set before them. However, this is not always easy, as communication within the virtual environment is much different from that in a face-to-face conversation. For addition, [20] discusses this difference in his article, "Some Rules for Virtual Teams." Virtual team participants need to be aware that there are different kinds of communication rules when working online. People who are corresponding online often seem to be or are more brusque, and sometimes even rude, than they would be in face-to-face conversation. If team members are aware of this tendency, they can watch for it and be willing to be called on it by other members when they slip into this mode [20]. Along with this tendency to be more forceful, there are many other problems associated with communicating within a virtual environment.

– Personality. The personality type of a specific group member could decide how well they communicate within the virtual environment. According to [21] in her article "Virtual Teams," extroverts may resist the isolation of electronic communication, but shy people often thrive on it. Therefore, an outgoing person may not communicate as well on a virtual team as he or she would in a face-to-face conversation. However, a person with a more backward personality is likely to find writing easier than speaking. This type of person would feel much more at ease within an online conversation than talking directly within a group. Likewise, people with opposing personalities working together, just as in face-to-face communication, may have frequent conflicts of interest. Dealing with this type of conflict takes much deliberation both on the team members and the leaders.

– Overcoming Personality Clashes. One way to overcome conflict within a virtual team is to enforce both a team leader and a team facilitator. The leader—formally known as a manager—directs the team. The facilitator, on the other hand, monitors the way in which the team works [21]. This helps the team leader to stay focused on the task set before the team. If certain team members are having frequent conflicts, the team facilitator is the first to step in and try to smooth things out [21]. Another easy way to deal with conflicts is to establish from the beginning how a problem will be handled. For example, the team agrees to enforce the rule that when conflict occurs, they must not deal with it electronically [21]. Therefore, one team member telephones the other for a personal conversation, or they agree to meet face-to-face. This prevents the misunderstandings that accompany virtual communication, such as the lack of visual cues.

– Visual Cue. The lack of visual cues within a virtual environment is one of the biggest problems teams may face. Social context cues such an intonation, facial expression, gestures, and contextual cues are missing within distance-based and computer mediated communication (theory and reality). For example, in a face-to-face conference, if your brainstorm "makes people around the table lean in and look directly at you, you know that you have piqued their interest; conversely, if your boss crosses his or her arms, you get another message, all without a word uttered" [22]. So what happens when these visual clues are missing? He [22] says this lack within the communication often leads to misunderstandings and lost productivity. And many groups cannot afford lost productivity. For those who are new at virtual teaming—and even those with experience—the lack of visual clues within a conversation can cause confusion and anxiety. A small misunderstanding, without the opportunity to access the usual clues of daily interaction, can quickly escalate into a troublesome resentment [23]. While this problem may at first seem difficult to overcome, by following a few simple tips, the team can quickly learn to avoid the difficulties associated with a lack of visual signs.

– Overcoming a Lack of Visual Cue. Humans communicate largely through body language. When this is missing within a conversation, group members must find new ways to make up for it. "One way to avoid the problems created by the absence of visual cues is to use aural cues instead," says [22]. For example, tone of voice can play a large part in how others understand your meaning. Also, a simple pause between thoughts can emphasize an important thought [22].

Another way to prevent yourself from relying too much on body language is to practice having a conversation without gesticulating. If you catch yourself pointing or explaining something with your hands, stop and try to describe the idea

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without any hand motions [22]. Practicing this outside of the team environment will help to overcome the habit, and therefore improve the communication lines for the next group meeting. The best way to work through this struggle is to simply remember that others cannot hear your hands moving [22]. Rigorous project management principles are essential to leading a virtual team. Make sure to be as specific and direct as possible in determining who will do what by when. This is especially important if the team is a global on, wrestling with language and cultural differences [21]. Since the communication in a virtual team is mainly conducted through different information systems, how to choose and manage communication technologies is very important for the virtual team effectiveness. This brings another challenge to virtual team leaders.

4.3 Technology as Challenge

The concept that virtual teams rarely communicate in an environment where they are physically present with one another means that most communications will be done through electronic means. In the virtual environment, communication can be done through emails, message boards and forums, video conferencing, or a combination of all. A leader must take into consideration such things as what technology and software is available to team members, how proficient are team members in using the selected technology, and what guidelines are going to be set in place for communications in the virtual environment. An important issue in regards to virtual teams is that the leader must take into account what technology hardware and software are available to the members of the team. This information will be handy to make sure that software is compatible as well as up to date with the same versions for all team members, Internet communication speeds, and restrictions on attachment sizes and message types. Especially with multi-cultural teams, the availability of Internet services may not be the same in each region. Some geographical regions may only be able to connect through dial up while others can connect at high speeds [24]. If there are no barriers as far as access to technology devices and software, a leader can be faced with the decision to choose what mediums will be the most effective for the group to effectively complete their goals. The site [25] TechnoTeams, a site designed to help with developing virtual teams, notes that a mistake commonly made in selecting the appropriate medium to communicate is that many times the device is selected before the project goals are set. Some virtual groups may design their projects around the technology available. The site [25] suggests that if the process is reversed, the team setting the goal and then deciding on the best way to use the technology available to them, then a more efficient process can be completed. This also allows the leader to address the   selection of team members better as another technology challenge can arise. This challenge would be the proficiency level of team members with the technology hardware and software. For a leader working in the virtual environment, it is important to understand that your group members may be at different proficiency levels in regards to working with these types of communication technology. For a virtual team to be effective, the members must be able to use the hardware and software necessary for the project. Some members may be very proficient with technology and others may be at a novice level. A leader has to evaluate group members and select the best tools for the team. Mediums to look for proficiency in include email and file attaching, Internet use and message board posting, and online chat and/or video conferencing (Human Resources and Virtual Teams). As these decisions are made, it is important that team members understand how to act in regards to posting in message groups or writing the content of emails. Although team members may be familiar with the technology that has been selected for the project, they may not be used to communicating in a more formal or professional manner in regards to communications. Preparing the communication environment from the leaders position can be as simple as setting up simple directions for use of the technology and submitting the information for the group members. Setting up some "rules of the technology road" can help to define the structures in regards to message exchanges, acceptable content, and cultural barriers in regards to communication. These types of guidelines are known as netiquette, or "using technology effectively to communicate with others both personally and professionally with knowledge, understanding and courtesy" [26]. The following are four main points that a leader can take into consideration when setting up a netiquette policy for the group.

- Interpretation of meaning. In a face-to-face group, vocal tone and body language can be used to interpret the meaning of a statement from an individual. In the online environment, the phrase "remember the human" is often used to remind users that the implication and the interpretation of the written words may be very different (The Core Rules of Netiquette). To overcome this obstacle, define some "emotion guidelines" such as the use of emotions, adding emphasis statements in parenthesis, or use of capitalization. Remember to note that ALL CAPS = SCREAMING in a virtual environment.

- Direction of communication. If you are replying to a previous posting, always quote or paraphrase the part you are replying to so your correspondents will know what you are talking about and to whom you are talking. Without a notation, a reply on a group message board may not make complete sense. In order to clarify to whom messages should be directed, note that all messages should define the recipient. Adding examples such as "In reply to Joe…" "As Joe was saying…" or "I agree with him (Joe)…" should clarify any confusion.

- Language and grammar. In some virtual groups, there may be individuals who do not speak the same native language. Especially in a multicultural virtual team, it is important to decide on a common language that is to be used. The business world is using English, Spanish, Japanese, and Chinese as the major languages for communications [24]. The differences in native languages might result in some difficulty in writing in a correct grammatical structure for the main language being used, users should be considerate and do not criticize a post because it is not written "perfectly." Just a simple statement about what language will be used as the primary language and patience by all users should cover this topic.

- There is no privacy. Since group members may be at different proficiency levels in regards to working with message boards and group emails, it is important that it is understood that all posts are public within the group. Reminders that users should not post information such as financial accounts, identification numbers, or personal

information that is confidential can help deter some security issues. Although safeguards may be in place to protect users from identity theft, there are no guarantees.

4.4 Security as Challenge

A security policy at a site determines the relevant security services that must be deployed in that site to counteract threats. A virtual team session is often set up between entities residing in different administrative sites, each having a different security policy. In order for a secure session to be set up, it may require administrative authorities of the collaborating sites to cooperate together to develop a consistent and uniform security policy across the participating sites. This may require delegation of security policy from one site to another across an un-trusted public network, placement of security services in different components residing in different sites and secure key management system. It may take days and even weeks to establish such a secure infrastructure. Even more worrying is the fact that many of these sessions are short lived and when they expire the associated security-related infrastructure must be eliminated. Security for interactive group based communication such as in virtual enterprise environment is problematic. This is because membership to a group is often active. Hosts may enter or leave the session without the permission or knowledge of others. One must be able to securely distribute a group key to each group member and refresh this key after a member has left. This must not degrade the performance of a virtual session. There must be a trusted entity to manage keys [27]. The trend toward using virtual environment as a tool for communications in business and industry has raised concerns about security and safety for the technology used. This growing demand for security is oriented toward communication media (voice, video, typed text), location (home, airport, office, restaurant) from which members use their communication tool, and technology through the networking system. The effectiveness of the virtual team is based on the trust members have on each other and on the technology they use. People building tools for virtual teams today are more focusing on aspects such as security and confidentiality. In order to combat this challenge, a comprehensive security plan must protect against unauthorized access from both internal and external sources. Methods of security can range from technologies based within the infrastructure itself, such as physical connection paths and virtual local area networks, to hardware and software-based devices, such as firewalls and security management servers. Virtual leaders need to be familiar with some security issues, including: authentication technologies; password protection; switches and routers safety; port-based security; firewall technologies; security and access control lists; security and remote access [27] and [28].

4.5 Motivation as Challenge

According to [29], motivation is anything that provides direction, intensity, and persistence to behavior. Another definition considers the motivation a sort of shorthand to describe choosing an activity or task to engage in, establishing the level of effort to put forth on it, and determining the degree of persistence in it over time [30]. Other researchers define motivation as a behavior probability; it is the likelihood an individual will initiate and continue exhibiting certain behaviors [31]. Motivation can be defined as an act of influencing other to accomplish a task with rewards or incentives. Typically,

motivation in virtual environment focuses on methods to make communication and collaboration easier between teammates on the purpose to get the job done. Most approaches are based on the assumption that there is a fixed team that can be trust and that trust can be build up. With trust we have the basis for motivation on an emotional level and can go on forming team that communicates and collaborates easily. Much of the work done in today organizations is performed by groups rather than by isolated individuals. Historically, these groups had to meet face-to-face with all the spatial and temporal restrictions associated with physical meetings, but with the advancement of information technology group work is now becoming increasingly virtual. However, when moving into new territories it is important to carefully examine how the displacement of face-to-face work affects different aspects of group work. One such aspect that is currently largely neglected is motivation. Virtual team with lack of motivation of its members will poorly perform. Virtual teams are said to be comprised of people who are geographically separated and work across boundaries of space and time by utilizing modern computer driven technologies. In such environment, since members are individual in front of its technology driven, there will be no clearly defined leader who can build up the emotional part of the team's motivation.

-   Motivation and team forming. According to [32], as soon as you start to combine people from different environments in a team, the motivational problems start. He formulated that properly: "Take a typical team, make it virtual, and expect trouble. Working across organizational boundaries introduces communications and motivational problems. You immediately need to compensate just to bring the team up to the level of performance of a virtual team located inside the organization to bridge the virtual gap". Most motivational approaches are based on the assumption that there is a fixed team that can be trust and that trust can be build up. With trust we have the basis for motivation on forming team that communicates and collaborates easily.
-   Motivation and leadership. Since a majority of the virtual teams members are cross-functional, consisting of individuals with different specialty areas, there is no clearly defined leader. The determination of leadership is most likely based on a day-by-day leadership style depending on subject and individual knowledge. If a member has fully knowledge about the subject then he or she will become the leader for a short amount of time. It is also important that the roles of the team members are clearly defined so that situations don't arise where you have more than one person doing the same task. In his book "Effective Communication and Information Sharing in Virtual Teams", [32] suggest that a base level of motivation automatically exists in virtual teams. This initial level of motivation is caused either by the professional reputation and integrity of the team members, or by an initial face-to-face meeting. Goal setting can also make this motivation among virtual team members greater [33].
-   Motivation and goals. The goal is an important reason to look also the team as a whole when looking for team partners. The partners should fit the culture of the team goal. If not the team leader of the day will have to make structural arrangements that compensate for differences. This restriction on direct contact and communication between the different parts of a virtual team, which are

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imposed by technology, could be an advantage. According to [34], the motivation and communication part of the team activities will largely be done inside a sub teams and the overall management role is reduced to interface tasks and contract as expressed in the contract, to influence accomplishments. He states that with the virtualization of the team along organizational boundaries one also gives up the right to choose and do which individuals work on the tasks. In a strict sense the team leader is not interested anymore in what is going on inside the teams, just the deliverables and the dates are important.

- Motivation and Rewards. There are many methods for motivating employees, and one of the most popular is reward. To some extent, motivation and rewards go hand in hand because most of the times reward is offered as a means of motivation. While the rewards system is a recognized and widely used motivation technique, it must also be refined for the benefit of the virtual environment. According to [35], rewards system fall into one of two categories in virtual environment: direct or indirect rewards. Direct rewards are awarded based on quality rather than quantity of the product. Teams may be rewarded monetarily for finishing a project on time or early. They might also be rewarded for a low number of product complaints. Indirect rewards are rewards that usually fall into some sort of benefits package. This reward might be allocated to team that finish under budget or to team that has the best end project satisfaction ratings.

- Motivation and companies. In a virtual environment companies come to view rewards, not as a cost, but as an investment in performance. Since corporations start looking rewards as investments, it is important for them to design compensation programs that promote a single set of objectives and provide reinforcement for success on common goals. It's these common goals that help tie team together. As stated by [36], a sense of vision shared among the team member, is the best way to motivate people. This shared vision will come from goal setting exercises where each team member has input on what the goals of the team should be. This allows each person to achieve a feeling of ownership of the team and they will therefore work harder to fulfill the goals that were set.

- Motivation and material incentive. Here the material incentives serve as the contribution to motivation and motivating. If the team members are from one organization only, the incentive design became clear and valid for everybody. So there should be no difference, neither on the material nor on the emotional level. Start introducing people from other organizations and there will be a difference on the material level. While the team leader of a day might eventually be able to develop the same mixture of emotional support and recognition for all team members, the material incentives will remain different, depending on the organization each participant belongs to. Differences in material rewards can introduce a lot of stress in teams over time.

4.6 Trust as a challenge

Trust is at the core of leading all groups, but especially those that span distance. It is important to know that when team members come from great distances, they don't have the opportunity to develop trust to the same level as if they are at the same location [33]. As a remote leader, when your team is distant from you, you have little or no power and control over them. In the isolation of distance, the only power and control you have as remote leader is what our remote team members exercise over themselves. The key way to build high performance across distance (to give the leader and the team power and control over the result) is to build trust [32]. Building trust across distance is easier said than done. The conclusion from conventional wisdom is that trust is very difficult to build and requires frequent face-to-face interaction [16]. In the virtual context, social control and direct supervision are hard to realize. Other factors such as different locations, members' feeling of isolation and detachment and complex time zones are also barriers for building trust. The virtual environment constrains, even impedes the development of trust [33]. There are many opportunities for trust issues to surface when people are distant. When people work in one location, they can see what is going on. When people work across distance, they don't. Lacking all the needed information, they'll fill in the blanks. And that's when trouble begins, because they don't always fill in the blanks correctly. People make negative assumptions about each other that have no basis in fact [32]. According to the research by [34], there are four types of trust exist in virtual teams. They are:

LowLow - low initial trust and low final trust
LowHi - low initial trust and high final trust
HiLow - High initial trust and low final trust.
HiHi – high initial trust and high final trust.

Also, a survey conducted by [34] suggests that the possibility to transfer from an initial low trust team to a high trust team is very low; less than 15% virtual teams have the transition from low-low to low-high. This means that if you don't build trust at the beginning, you probably don't have the trust at all. In regard of team effectiveness, those two categories: Low-Hi and Hi-Hi, can create effective results. But not for Low-low and Hi-low teams. Virtual teams may experience a form of 'swift' trust, but such trust appears to be very fragile and temporal. The category of Hi-low demonstrates that team members build the 'swift' trust at the beginning, but end up with low trust. One thing leaders have to remember is that leadership is not something the leaders do to the followers; it is something the leaders do for the followers [32]. By building trust, the leader is doing something for the followers. He is helping them to rely on their own unique talents, abilities, and perspectives.

- Trust building is the key for team effectiveness. But how can people don't know each other can trust each other? This brings up another issue we need to discuss here as another challenge for group dynamics at the team process level.

4.7 Relationship as Challenge

Group dynamics as one of the criteria in measuring team process, are the foundation upon which other teamwork proceeds. If the team is ultimately to achieve the three valued outcome measures of effectiveness, a firm foundation of effective group dynamics will be critical. The relationship building helps the team to achieve effective group dynamics [4].

- The Advantages of Building Relationships for a Virtual Leader. Building relationships with team members can bring many advantages to virtual leaders. According to the research by [15], there are some potential benefits for

virtual team leaders. First, leaders can better understand team members' personalities, communication styles, relevant experiences, backgrounds, skills, cultural differences, etc. Then, strong relational links can enhance creativity, motivation, increased morale, better decision making, and fewer process losses. There are also benefits of developing and maintaining long-term social and professional relationships. While many teams come together to fulfill the requirements of a particular project and are then disbanded, others may be reconstituted, or continue in loose affiliations known as communities of practice, maintaining professional and social relationships. Virtual team leaders may find it advantageous to continually strengthen and maintain relationships with people they are likely to work with in future personal, team, or organizational context [15].

- How to Build Relationships in Virtual Team. Since virtual partner have limited interaction and limited knowledge of each other in their isolation, the virtual team must establish many ways to help the partners learn about each other quickly and frequently. Establish ways for the team to learn more about each other professionally and personally (one-site meetings, electronic yearbooks, site previews) so they will collaborate even when distant. Establish a short, informal compressed meeting for the team to talk with one another, to problem-shoot and have others contributes. Since virtual partnering doesn't come naturally, structure pairs of people to work together on parts of the project. Better yet, encourage them to do so. Be an idea champion. Value every idea presented in the team. Handle it in a way that seems fair to the person who offered it. Since trust is fragile, especially at first, react on an assumption of trust, not distrust [32].

5 SUMMARY

In order to achieve the effective output, the clarification of the goals is very important to virtual teams. People who work across distance tend to lose focus after any single-site meetings. In order to keep team members all headed in the same direction when they are distant; the leader needs to align them in two ways. One way is intellectual. Everyone needs clear agreement on what they are working together. The second way is emotional. Everyone needs to care on a personal level that the task is worthwhile [32]. Therefore, it is critical that the virtual team create:

- A clear, compelling intellectual link so every virtual partner knows exactly where the team is headed once everyone is distributed.
- A clear emotional link on a very personal level so each remote partner stays motivated when distant.
- A daily alignment tool that is used as each person does work remotely to align work and effort worldwide.

In a virtual team, the L-F-S framework is different from that of a traditional face-to-face team. Especially the situation is totally different from the face-to-face team. That brings many new challenges to virtual team leaders. In order to successfully lead a virtual team, more requirements have been imposed on team leaders. Leaders in virtual teams can no longer control the work processes of virtual teams with traditional means, and need to develop a different set of coordination and control mechanisms. Virtual team leaders must be able to 'read' all the personal and contextual nuances

in a world of electronic communications. They must be able to understand the possible causes of silence, misunderstandings, and slights, without any of the usual signs to guide them. Leaders must be sensitive to the 'flow' of team processes, paying attention to the smallest matters to head off potential troubles that could derail the team's task. Virtual team leaders, therefore, must not only manage the project tasks and occasional personality conflicts normally associated with a collocated team, but must also be able to guide a team of geographically distributed, and often organizationally and culturally different individual, in creating a common purpose. They may also be the person interfacing with stakeholders and extended team members, such as direct and indirect mangers, customers and supplier [15].

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