ABSTRACT

Telecommuting, as a viable work option, has steadily gained in popularity over the past decade. Growth will continue, fueled by proliferation of affordable technological advances and companies' desire to foster collaboration, productivity and innovation while supporting employees' work/life balance.

Today pharmaceutical companies, faced with mounting cost containment pressure, must respond to increased globalization, standardization, and out-sourcing trends to attain greater effectiveness and competitiveness. Working teams are increasingly formed across geographic areas in different states, countries, continents and time zones. In many ways, these virtual teams no longer exist as an accessory but as a necessity to attract diverse skills and retain top talents in the industry.

Telecommuting SAS programmers, whether occasionally, part-time or full-time telecommute, are members of growing virtual teams who significantly contribute to team dynamics and team success.

While a successful telecommuting arrangement can be a win-win for both companies and employees, it does present unique challenges and rewards. This paper will explore vital elements of successful telecommuting for SAS programmers. Whenever appropriate, these same approaches can be utilized by essentially all members of virtual teams to increase virtual collaboration and optimize productivity.

INTRODUCTION

Health care reform and a shifting regulatory environment are putting increased pressure on pharmaceutical companies to develop innovative treatments that will reduce long term medical costs. As the industry consolidates and builds a strong presence in emerging markets, companies are challenged to increase productivity and collaboration of teams across geographic areas, sometimes completely virtual.

The availability of affordable technology has also led companies to consider telecommuting as an increasingly viable alternative work option for self-motivated employees.

As a full-time, home-based telecommuting SAS programmer for a large pharmaceutical company, understanding the challenges of telecommuting and having strategies to maximize productivity and contribute more efficiently as a team member are very important elements for telecommuting success.

TELECOMMUTING

The U.S. General Services Administration (GSA) defines telecommuting as "a means of performing work on a regular basis in a location other than the principal office, either at home or at a nearby telecenter".

Telecommuting can take on a range of forms. An informal telecommuter may work at home occasionally (e.g. avoid road condition due to snow storm). Part-time telecommuters usually
telecommute a day or two every week. Full-time or remote telecommuters are those for whom the home office is their primary work location.

VIRTUAL TEAM

A Virtual Team refers to a team that, for the most part, is linked through communication that is not face-to-face. Virtual teams generally include members who are physically separated from their teammates. For research and development in pharmaceutical companies, virtual teams may include company employees located in different sites, remote telecommuting employees, or contractors/outourcing partners in various global locations.

Depending on the organizational structure and project needs, the degree of virtual team may vary. Some teams are entirely virtual. Their members rarely, if ever, meet face-to-face. In a clinical trial team, a statistical SAS programmer, statistician, clinical monitor and clinical research specialists may be physically located in various company sites and have to communicate solely through email, voice mail, telephone, video conferencing, web conferencing and other internet-based forums. At Merck, we have programming teams supporting late stage development located in multiple offices in the US, Belgium, Japan and China.

A virtual team can work literally around the world, on a 24-hour cycle. It allows companies to bring together a diverse group of people with varying skills, experiences and knowledge. Virtual teams are real teams, and when they perform well, they offer many advantages to companies.

ROLE OF SAS PROGRAMMERS

The traditional role of SAS programmer is to generate tables/listings/graphics in SAS to support safety and efficacy analysis and reporting. Programming work is generally suitable for telecommuting as it does not involve frequent meetings or face-to-face interactions. SAS programmers work almost exclusively on computer networks and have definite requirements and deliverables.

In recent years, the pharmaceutical industry is under cost-cutting pressure to move towards standardization and outsourcing. A statistical SAS programmer is expected to participate in a variety of clinical data management activities (e.g. eCRF design, SDTM mapping, medical monitoring, etc.). Often times, a statistical SAS programmer is also a project lead who interacts with project team members virtually on a regular basis.

Illustration of Statistical SAS Programmer's Interaction in a cross functional team
Heads-down traditional SAS programming is no longer the only activity performed by SAS programmers. In addition to keeping up with changing technology and technical know-how, a statistical SAS programmer must have the necessary communication skills to collaborate with cross-functional teams. As cross-functional teams are becoming more virtual, SAS programmers either on-site or telecommuters themselves, will need to adapt to ensure effective collaboration. Even though the traditional SAS programmer role is expanding to include new skill sets, new telecommunication software and applications can keep programmers connected. They can continue to make an impact and continue to be a team-player.

ESSENTIALS OF SUCCESSFUL TELECOMMUTING

A successful telecommuting arrangement for SAS programmers requires a supportive corporate culture, managers who are supportive and skilled at managing telecommuters and self-starters who have a proven ability to do the job well with minimal supervision and a solid set of core SAS programming skills.

Top Management Support

It is imperative to have top management support for telecommuting program. This includes developing a telecommuting policy, providing necessary infrastructure, and planning for technical support.

Having a supportive culture and a telecommuting policy will help a company to support their telecommuting network, prepare managers for telecommuting supervision and select and properly train telecommuters.
Flexible schedules were first introduced by Merck more than a decade ago. In 2008, based on a global survey of 12,000 employees, Merck introduced Global Flexible Work Arrangement program. It then launched a website introducing the guiding principles or flexibility at Merck, process to request Flexible Work Arrangement and training.

Line Management Support

After a company establishes a policy supporting telecommuting, it relies on line management to select the right candidate, prepare and establish a plan for supervision and regularly evaluate the program.

While an independent, pro-active, self-starter may be a good fit for telecommuting, it is not for everyone. A manager will evaluate specific role responsibilities together with SAS programmer’s work experience, technical skills and communication skills before granting such an arrangement.

There are many known advantages of telecommuting. However, working remotely adds complications. What about meetings? What if connection goes down? A supportive manager will work with the employee to establish a list of concerns and prepare solutions to address each and regularly evaluate the arrangement.

When a telecommuting arrangement is first established, a formal feedback schedule should be planned to solicit feedback from stakeholders. The frequency maybe reduced when the arrangement is well established and proven to be effective.

Managers with demonstrated organizational and leadership skills are best fits for managing telecommuters. They focus on results, carefully coordinate activities, help telecommuters interact with other team members, and identify new development opportunities for telecommuters. A supportive manager will also schedule regular meetings with telecommuters to give feedback and clearly communicate expectations.

Telecommuting Productivity

The ultimate measure of a SAS programmer’s effectiveness is productivity. A typical metric of a programmer’s productivity can be measured by the number of tables/listings/graphics (TLGs). Today, as programmers progress through their careers, they are often taking increasing responsibilities which include more than just generating SAS programs and reports. Frequently this includes project management, documentation, training and facilitating interaction with other departments.

Results are what counts, not face time or number of hours one is seen in office. Some programmers are known for quick turn around, some for balancing multiple tasks, some for collaboration with team members and some for a combination of talents. A SAS programmer must meet and exceed expectations to convince management that telecommuting is a viable arrangement.

It is good to remember that flexibility is not an entitlement; it is an alternative work option. One must strive to meet and exceed expectations to ensure a win-win outcome for both the company and the telecommuter.

STRATEGIES FOR TELECOMMUTING SAS® SUCCESSFULLY

Telecommuters face unique challenges to maintain/improve productivity. For one, the isolated environment is not for everyone. Some prefer the hustle and bustle of an office environment. Developing a sound strategy for telecommuting SAS programmers can help lead to a more productive experience.
1. Connectivity

Remote connectivity is a vital life-line for telecommuters.

Ensure you have a high-speed ("broadband") network connection and VPN access to the corporate network.

Frequent loss of connectivity negatively impacts productivity. This is especially true for remote workers. Without a PC service center one can go to for help, it's highly desirable for a telecommuting SAS programmer to understand some basics on how to establish and maintain remote connectivity.

At a minimum, workstation needs to meet certain system requirements. Periodically, necessary system updates must be performed as required. Failure to perform these updates may result in loss of connectivity unexpectedly. Non-standard software also affects the connection and should be removed from the workstation. If wireless broadband connection is used, be sure to have the most up to date connection software from the provider otherwise the connection maybe dropped after being initiated.

Even the most tech savvy SAS programmers may run into troubles with remote connectivity from time to time. Having some knowledge about computer hardware, knowing basic troubleshooting, and when to call helpdesk can help restore connection within the shortest amount of time.

There are many component variables with home network. They include hardware, software, and internet service providers. Companies generally can not help with specific home network configuration. More often than not, rebooting all of network hardware may resolve connection issues. It's recommended that the hardware be shut down and restarted in the following order:

- Shut down laptop
- Power down router
- Power down modem
- Restart modem
- Restart router
- Restart laptop
- Retry establishing network connection

Remote telecommuting SAS programmers can also use on-site opportunities to perform PC maintenance and ensure laptops running most efficiently.

2. SAS Programming Environment

At Merck, SAS users have PC SAS 9.1.3 installed on laptops. Users can log into the Merck network from any location and process data. For the most part, clinical trial data and analysis and reporting are performed on Merck hosted share drives. Analysis and reporting is performed locally on the user's PC so it requires data to be transferred. When datasets are small, this working process is feasible. However, when processing larger amount of data some other options for processing data are:

a. Utilize a remote PC.
b. Utilize a VPC (Virtual PC).
c. Utilize a UNIX machine by logging in directly.
d. Utilize a Unix machine by remote access with SAS/Connect.

3. Availability

A telecommuting SAS programmer should be highly accessible.
Set a starting and ending time of work day and let your team know your schedule. If you need to step away, email your manager and co-workers and set your instant-messaging (IM) status properly.

One of the biggest barriers to telecommuting is convincing people that someone who isn't visible isn't working. IM is very useful software for telecommuters. It helps telecommuters stay connected to their peers. For office workers, it's apparent when one is "at work" and when one isn't. IM enable others to "see" remote employee at work.

Another way to show availability is to respond quickly. When a telecommuter answers email immediately, it sends a message – the telecommuter is not slacking off at home, as some may have doubt, this person is working.

3. Home office do's and don'ts

- Designated office space
  Set up a designated office space at home to serve as work area. Organize work space so all work related office materials and equipment (computer, printer, modem, fax, etc.) are clearly in places.

- Structure your work day
  Working remotely requires careful planning and discipline. Set a schedule and make a plan for each day and have a list of tasks to accomplish.

- Minimize distractions.
  The distractions of home office are different than that in office setting. Children, pets, household chores can be sources of distractions. SAS programmers that telecommute need to be focused, disciplined and avoid interruptions at home. This also involves managing the expectations of people around you. Tell family members, friends and neighbors your work schedule and clearly let them know your boundaries between work and family.

- Time management.
  A telecommuter can go to the other extreme. Having constant access to the office, a dedicated SAS programmer is tempted to work long into the evening and on weekends. To have sustained productivity, a telecommuter needs to learn to stay on a schedule, take regular breaks and to remember to take lunch breaks.

4. Collaborate virtually

In today's global work environment, collaborating via online meetings is a necessity. As the SAS programmers' role continues to expand beyond programming, it's increasingly important for SAS programmers to collaborate with team members in cross functional areas.

Instead of face-to-face meetings, team meetings are increasingly conducted via teleconferencing or web conferencing software with members of the team joining from different parts of the world.

Telecommuters need to be aware of proper etiquette for the various software tools. Here are some tips:

Teleconference/Web Conference:
- Enter the meeting on time or even a few min prior to the start time to avoid technical glitches.
- Identify yourself when asking questions or making comments.
- Participate appropriately.
• Refrain from multi-tasking so you can be prepared when called upon to comment in a meeting.
• Keep yourself on mute when not speaking and keep the background noises to the minimum.

Instant Messaging (IM):
• Keep it brief. IM is ideal for informal, short, back-and-forth exchange. Save longer "conversations" for phone meetings and long messages for email.
• Be professional, following company's compliance policies. Use proper grammar, spelling and punctuation.
• Observe IM conventions. Set your status to reflect that you are in a meeting, away or busy to minimize distractions.

5. Communicate proactively

For telecommuters, communication skills are of critical importance. Oftentimes, it requires telecommuters to make the extra effort to communicate often, communicate clearly and precisely.

• Communicate with email, phone and IM to let colleagues know what's going on.
• Keep in contact with a few colleagues on a regular basis to make sure one doesn't missed out on any critical communications.
• Schedule regular one-on-one phone meetings with managers. Keep managers in the loop on project status, progress and especially any concerns that may affect a deadline.
• Participate appropriately in teleconferences to make any necessary comments.

6. Maintain Social Interaction

Isolation is one of the biggest concerns for telecommuter, especially full-time, remote programmers. SAS programmers working remotely need to adjust to certain social isolation.

Frequent communication by phone, email, IM will help telecommuters to diminish the feeling of isolation and keep in touch with the office staff.

It is recommended for full-time, remote SAS programmers to schedule regular on-site visits to the corporate office. This gives telecommuters a chance to have face-to-face contacts with their manager and the rest of the team. When a new team is formed, team members benefit strongly from an initial face-to-face kick off meeting. Remote SAS programmers should maximize the on-site opportunity to connect with co-workers.

Joining a local SAS user group is a helpful way for remote SAS programmers to get out of the house and interact with people in the same profession.

7. Seek Visibility

'Out of sight, out of mind' is a real risk for full time, remote SAS programmers. It requires telecommuters' deliberate effort to make themselves visible in project teams.

- Speak up
  Participate appropriately in teleconferences is one way to increase a telecommuter's visibility. If you tend to shy away from speaking up in a face-to-face meeting, you need to speak up more during a teleconference to let the team know you are there and are actively participating. Don't keep silent. Make your voice heard.

- Self promote
Telecommuters need to make a deliberate effort to demonstrate productivity. A weekly log of projects and tasks is strongly recommended for telecommuters to send to their manager. Set up regular meetings with your manager to ensure expectations are being met and explore professional growth opportunities.

- Seek out good projects
If you are passed up for a project that you are qualified for and fits for off-site work, maybe 'out of sight, out of mind' phenomenon is happening. Being a remote SAS programmer doesn't mean one is detached from the team. In fact, building trust and credibility with your manager and team members is very important. Once a SAS programmer has demonstrated effectiveness while working remotely, you should let your manager know about the type of projects you desire. A supporting manager will help you seek out projects that can move your career along.

- Professional Growth
Many companies have developed e-learning courses for their employees. This is a great opportunity for telecommuters. Even when telecommuting SAS programmers are not physically in a traditional office setting, one should utilize e-Learning opportunities whenever possible to improve their knowledge and skill set.

Merck offers a wide variety of Web-based learning options to help employees strengthen technical skills and build leadership capabilities. As an individual contributor, a telecommuting SAS programmer can build learning into daily schedule through web-based learning. Find time and get trained in both technical and soft skills to help build your professional telecommuting career.

A telecommuter does not have to put their careers on backburner. Make employee development planning a real tool to help with career growth. Schedule time to discuss career growth with your manager, identify training needs and areas for growth.

CONCLUSION

The pharmaceutical industry is under going changes that emphasize a results-based and high efficient organization. More and more cross functional teams are expected to collaborate virtually due to location, time and budget concerns.

To be a successful telecommuter, the SAS programmer needs to build work habits and develop strategies to handle the special challenges of telecommuting. The expanding roles of the traditional SAS programmer also demands strong communication skills to interact with cross functional team members. These same set of strategies for telecommuting may be adopted, where appropriate, by all virtual teams in diverse geographic locations to foster collaboration and improve productivity.

REFERENCES


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