Distance Management: how to lead a team of SAS users who sit half a world away
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ABSTRACT
This focus of the paper will be the author’s experience of managing a large group of SAS users (both programmers and statisticians) based in India. The paper will describe advantages and challenges of managing such a group as well as various project management techniques to guide the projects to successful completion.

INTRODUCTION
The outsourcing of various SAS programming activities to India is gaining momentum as drug companies and CROs are trying to access a highly educated but less expensive pool of talent for clinical programming. These activities not only include such basic tasks as the programming of displays or QC, but they often involve the writing of analysis plans as well as direct interaction with the clinical customers. The latter naturally demands command of English. Such activities are often managed by senior staff based in U.S. or Western Europe. It is not unusual to have a lead programmer or a statistician located in U.S., while most of the programming is actually done in India. This approach may lead to the decreased costs of drug development since the labor costs in India are less than in U.S. or Western Europe.

Though economy may motivate this arrangement, economical benefits are not guaranteed. Distance management poses unique issues that can lead to missed deadlines or poor quality of the analysis. In particular the challenges faced include time difference and relative inexperience of staff, as well as certain cultural differences. It is important to anticipate potential problems while outsourcing a project to India and take steps to avoid them.

BENEFITS OF USING INDIA-BASED STAFF
There are numerous benefits associated with using SAS users located in India. First and foremost, labor rates are significantly cheaper in India. While wages in India for SAS-related activities continue to go up, they remain below the comparable wages in U.S. by a significant percentage. As pharmaceutical companies try to reduce the overall costs of drug development, the use of India-based SAS staff remains the attractive alternative to the use of SAS staff in U.S. or Europe. Use of the India-based staff is often a cost-effective alternative to project teams facing budgetary constraints.

India-based SAS users typically have very good programming and statistical skills as well as a good knowledge of the processes. This is extremely important in such a highly regulated industry as the pharmaceutical industry.

The author and his local colleagues have found SAS-users in India to be highly motivated and personable. Uniformly, their English skills are excellent which ameliorates conversations via TC and allows them to integrate with the broader clinical development team. Many demonstrate a high dedication to the success of the project and have a “can-do” attitude. Table 1 below shows the key benefits of using India-based staff.

<table>
<thead>
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<th>Cheaper labor costs</th>
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<td>Good programming and statistical skills</td>
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<tr>
<td>Excellent knowledge of processes</td>
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<tr>
<td>Strong dedication to success of a project</td>
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<td>Good English skills</td>
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<tr>
<td>Have a “can-do” attitude</td>
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<td>Personable</td>
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Table 1. Key benefits of using India-based staff
THE MOST FREQUENT PROBLEMS ENCOUNTERED WHILE WORKING WITH STAFF IN INDIA

The biggest issues experienced with using India-based staff are time difference, high turnover and cultural differences.

TIME DIFFERENCE

Time difference is arguably the biggest obstacle to using India-based SAS users in a project. The time difference between most U.S. and Indian locations is about 10 hours. Therefore there is very little time during the work day when India-based team members have a chance to work together with their U.S. counterparts or customers. The impact on the project is quite significant. As long as team members don’t work at the same time, most communication has to be done via e-mail and that leads to significant delays. As a rule, it takes a day or more to respond to most questions or requests. Thus, the ability to quickly provide the clinical customers with adhocs or make urgent changes is severely diminished.

The time difference as well as the remote location leads to less interaction within a team, which may hurt the team dynamic. It is harder to schedule team meetings. This is the nature of using India-based SAS users and there is nothing that can be done to totally eliminate this problem. However, there is a number of ways to minimize it.

Since many reporting activities such RAP programming or QC are routine they can be carefully planned in advance and the need for urgent changes or rework can be minimized or sometimes even completely avoided. Regular communication can be an effective tool for the interaction between team members located in different time zones.

Unfortunately, in many cases it is not possible to completely plan the activities in such a way that no immediate interaction between team members is required. Sometimes an immediate response to a communication or an update is required. In such cases, the ability to work at odd hours is essential for the successful completion of the project. For example, the author found it quite useful to start work earlier or very late U.S. time in order to be available to India-based SAS users. This would often lead to the overlap time of about 4 to 6 hours. This “common” time was used for team meetings, video or live chats or phone calls. The India-based team members were also often able to shift their working hours. The author would advise to identify and plan for such times when some or most of the team members located in both India and U.S. would be expected to work at odd hours.

It is important to realize and accept that some team members may not be able to work odd hours for a variety of personal reasons. In such cases these people will need to find a way to delegate some of the tasks to those who have such ability. Additionally, working at odd hours for prolonged amount of time is not healthy and such activities should be limited to critical tasks.

The author would also suggest assigning time-critical tasks to the personnel located in U.S. whenever possible. For example, the production of urgent adhocs or headline results may be assigned to SAS users located in U.S., as those tasks may be the most critical and urgent, and the immediate interaction with customers may be necessary.

Some companies may be able to have staff located in Europe to bridge the gap in the time zones. Such staff would be able to coordinate the effort between the India-based staff and their managers, counterparts or customers in the North America.

Ultimately, the time difference may be an insurmountable obstacle in some cases. The study team must be made aware of the possible loss in flexibility and turn-around time prior to deciding whether to involve India-based staff in a project.

Table 2 below highlights several techniques to manage team members located in different time zones.

<table>
<thead>
<tr>
<th>Careful planning and delegation of activities</th>
<th>Ability to work odd hours</th>
<th>Use Europe-based staff to bridge the gap</th>
<th>Manage expectations of internal and external customers</th>
</tr>
</thead>
</table>

Table 2. Effective working in different time zones

MANAGING HIGH STAFF TURNOVER AND INEXPERIENCED PERSONNEL

The author experienced a high rate of turnover among the India-based staff. This may be explained by the current very high demand for SAS users in India. The turnover led to a number of relatively inexperienced SAS users working on complicated displays.
Having high turnover among staff can result in missed deadlines and lower quality of analysis if not properly managed. As with the time difference, there is no easy way to completely avoid the problems associated with high turnover. While retaining the best people is often outside of the project manager’s control, there are some ways to minimize these problems. It became extremely important to properly document the code, decisions, and assumptions. The less guess work there is, the faster new team members were able to get up to speed and become effective team member.

Working with new or less experienced team members is always a major challenge. These team members will obviously require more supervision, mentoring, and guidance. This can be done by the lead programmer as well as by more senior and experienced staff on the team. Senior team members must plan for extra time to train the new staff. The author always tried to ask for longer overlap with the new staff whenever he found out about the expected turnover.

It can be a quite effective technique to set very specific deadlines for various tasks, set time limits on completing them, follow-up on completed tasks and provide feedback.

Good communication is a requirement to any successful project, especially for the SAS users located in a different continent. Any communication should be complete and precise. The assumptions in RAP should not be left to a guess work. It is absolutely crucial to have clear and documented programming assumptions and specifications.

The new members of the team may not be able to properly plan and estimate the time required for them to finish the tasks. Therefore, a manager must try to plan in advance to have plenty of time to work through the project tasks.

Another important approach of working with inexperienced team members, especially if there is a lack in experienced SAS users, can be the prioritization of work. The entire staff and the customers should always be informed about the study timelines, study priorities, and any changes to them.

The author would also recommend learning the strengths of each team member and utilize them to the fullest extent possible. Eventually, as the new members of the team become more productive such close supervision may be no longer necessary.

Table 3 below highlights several techniques to manage new or inexperienced SAS users.

| Must have clear and documented assumptions and specifications |
| Follow-up on completed work and provide feedback |
| Learn the strengths and weaknesses of the team members |
| Plan activities and set time limits on completing them |
| Plan in advance to have plenty of time to work through the project tasks |

### Table 3. Managing new or inexperienced SAS users

### ESTABLISHING GOOD WORKING RELATIONSHIP WITH INDIA-BASED STAFF

Establishing good working relationship with the SAS users based in India is crucial to the successful project. Needless to say, all team members must be treated with the utmost respect, regardless of experience or skill set level.

The author found that soliciting advice and opinion from the team members is an extremely useful approach to establishing a good atmosphere in the project. Asking for advice accomplishes four key goals: a) demonstrates respect b) teaches team members to develop better critical thinking skills c) take ownership of the project and d) helps to open channels of communication.

Whenever possible, a manager should get to know personally the SAS users assigned to the project. While traveling to India from U.S. is quite expensive, it may be worth the money if the trip helps establish good working personal relationships. Alternatively, it could be beneficial for the team members from India to travel to U.S. In case such trips are not feasible due to budgetary constraints, it would be beneficial for team members located in India to at least meet their customers and counterparts via videoconferencing.

In addition to scheduling regular meetings, a lead SAS user should try to be available to the individual team members via phone calls or instant messaging. The SAS users in India should know that they are an important part of the entire team regardless of where they are located.
The cultural differences between Indian users and those based in the West are real and should not be overlooked. Anybody planning to manage or work with Indian SAS users would benefit from learning more about the Indian culture and the preferred way of working in that country. Talking with somebody who has already worked with the India-based staff would also be helpful.

Table 4 provides several tips on how to establish a good working relationship with India-based staff.

<table>
<thead>
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<th>Table 4. Establishing good working relationship with India-based staff</th>
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<tr>
<td>Treat everybody with respect</td>
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<td>Solicit advice and opinion</td>
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<tr>
<td>Get to know each team member</td>
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<td>Be available to team members</td>
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<tr>
<td>If possible, meet everybody in person</td>
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<tr>
<td>Be aware of the cultural differences</td>
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<tr>
<td>Talk to others who have experience of working with SAS users</td>
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<td>based in India</td>
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**CLINICAL PROGRAMMING IS MORE THAN JUST CODING**

It is important for SAS programmers to understand that having good SAS skills is not enough to be a good clinical programmer. A detailed understanding of the protocol is almost as important, and the programmers should be encouraged to invest time learning some of the clinical details of the protocol. For this reason, the author finds it useful to involve the Indian programmers as early as possible during study development. Attending the discussions about the protocol, CRF or RAP would facilitate better understanding of study details by the SAS programmers despite their remote location.

**CONCLUSION**

Programmers and statisticians based in India are highly skilled professionals and their use is increasing in the pharmaceutical industry. The remote management of such a team presents numerous challenges. Becoming aware of these challenges earlier and preparing for them is key to the successful management of the team and ultimately, project completion.

**FURTHER READING**

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Ayyappath, R. Building a Team of Remote SAS® Programmers, PharmaSUG, 2012. Available at [http://www.pharmasug.org/proceedings/2012/MS/PharmaSUG-2012-MS08.pdf](http://www.pharmasug.org/proceedings/2012/MS/PharmaSUG-2012-MS08.pdf)

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