

Build a Successful Global Training Program



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Welcome

Today we'll talk about how best to prepare yourself for training offshore teams to do their job AND have less stress leading managing offshore teams.

Overview of the discussion

- First, we'll talk about the problem and training as the solution.
- Then, some of the important facets of training and considerations for the solution.
- Describe the necessary topics.
- Tips from the road: Setting yourself up for success.
- Q&A

Where are we now?

Some typical problems:

- We already offshored and need to fix headaches.
- We are about to offshore and want to do it right.
- I have to work in my office till my offshore teams comes in to make sure they get started on the day's priorities correctly and come home too late!
- My work week begins Sunday nite with the team's Monday morning meeting.
- My project team has no trust in the Test Team!
- I am constantly saying the same things over and over...
- I spend too much time managing my offshore team!

A not-so Funny story

Sleepless in Silicon Valley

"We keep passing the baton between California and India, and that way we can cram a lot more work into a 24-hour period," said Jeff Hawkey, vice president of hardware engineering at PortalPlayer, who conducts evening meetings from the office or on his laptop at home. "A lot of nights, I go home, tuck the kids into bed and then get on the conference call."

http://www.msnbc.msn.com/id/7781510/

Where are we now?

The solution to these problems is not more late nite phone calls or trips away from home or complaining about incorrect status report! The solution is better training!

Deeper Problems

More serious than late nite phone calls:

- spending all your time reviewing bugs,
- endless questions...
- not getting effective testing,
- not-the-whole-truth information,
- missed bugs,
- wasted time and money,
- failed projects!

How can training help?

Extensive training for test teams:

- Train the team to do their job!
- Establish trust,
- Set guidelines and establish metrics to manage against,
- Provides for good and effective work,
- Implement process and communication infrastructure,
- Remove questions about what to do and when,
- …all, easier said than done.

Essential Training Areas

- Communication methods and expectations
- Your Test and Project Process
- Product
- Domain Knowledge
- Product Technology
- "How to Test"
- Set-up English training where necessary
- Cross-cultural and "Working with Americans"

By the Way

- Different teams, various countries will have different needs.
- India, China, Russia, Mexico,
 Canada, Vietnam, Philippians wherever, have different needs.
- ...btw, this work is not only for the offshore teams. US teams need training for working with offshore teams as well.

Before you buy the plane tickets...

Get Started Planning

Communication and Your Test and Project Process



Before you buy the plane tickets...

- There is preliminary work to do before putting trainings together.
- Map the goals. What problems are you trying to solve?
- Define the audience. Who are your testers?
- What things do I need to be aware of as I make plans?
- Fully define your process.
- What are the topics I need?

Planning a Program

In this chapter we will cover:

- Communication, communication, and more communication!
- What is Micro-communication?
- Building Trust
- Who is your staff?
- Unique issues with Testing/QA not found in Development
- Getting your own house in order: clean up, organize and document your process!
- Setting Expectations
- What is this "Tribal knowledge" thing?
- Reliance on Six Sigma, CMM, etc.

Communication gives Visibility

Visibility into:

- What is happening,
- What is not getting done,
- Progress and productivity,
- Problems, issues, roadblocks.

Communication gives Visibility

How do you get visibility?

- Status Reports
- Daily Reports
- Bug Tracking System
- Test Case Manager
- Project Web Page
- Project Dashboard
- ...whatever you use!

Have this nailed down with easy references.

Micro-communication

What is *microcommunication?*

Microcommunication is total, thorough, complete, open, detailed communication that enables you to NOT micromanage.

Visibility from Microcommunication

Aside from micromanagement being bad practice, it is very difficult to micromanage 8,000 miles away.

What are the options? Microcommunication.

Micro-communication

We want microcommunication not micromanagement.

How do we get it?

- Provide infrastructure, training and expectation on communication processes and methods.
- Manage against poor, missed and wrong communication.

Microcommunication

Hint for success

- Build a structure for reporting, metrics, tools for sharing files, tools for communicating- set up the infrastructure and train on it.
- The more avenues for communication the more chance of success: only IM and daily status reports? No, add a test case manager, blogs/discussion board threads, etc.

Communication

IM communication- difficult to share or archive, valuable, quick, use wisely!

Email is impersonal and often nuanced and leaves much room for misunderstanding.

Training builds Trust

Spending time with the remote test team, you and others on your team will open lines for questions, informal communication, getting answers, getting information, sharing project experiences, etc. All of this time needs to begin building trust. Trust you will be honest with them, trust they can be honest with you.

Training builds Trust

- Building trust is not typically a major reason to train US teams.
- It is for offshore teams!
- Training gives you more confidence work is getting executed the way you intended as well as giving the offshore testing team more confidence they are doing what you want!
- Having trust in each other needs to open the door for the delivery of inevitable bad news.

How do you hire people for your team at home?

What skills? What experience?

How are people hired for the offshore teams?

Who is your staff offshore?

Who are your employees? What experience do they have? QA/Testers? Domain experts? Tech Support?

Your offshore team will, more than likely be different.

- May be more technically skilled than typical US team.
- Right out of college?

Compare the two teams. Adjust your training.

Ten Commandments for Stress Free Programming Jokes. Net Computer Jokes: Programmer Jokes

- 1. Thou shalt not worry about bugs.

 Bugs in your software are actually special features.
- 2. Thou shalt not fix abort conditions.
- 3. Thou shalt not handle errors.
- 4. Thou shalt not restrict users.
- 5. Thou shalt not optimize.
- 6. Thou shalt not provide help.
- 7. Thou shalt not document.
- 8. Thou shalt not hurry.
- 9. Thou shalt not revise.
- 10. Thou shalt not share.

Who is your staff offshore?

The various skill levels of the home team and the offshore team may have you re-consider what work to send and what work to keep in the home office.!

Example:

- send automation
- send low-level & API testing
- keep business process
- Keep user scenario

— . . .

Some problems you may face from the team makeup that are unique to the current offshore hotspots:

- Developers who do not want to do QA/Test work
- Many hope to graduate to development
- Testing is not valued in software development.
- Technically trained people may not necessarily want to test.
- Developer testers may not want to criticize their future co-worker developers.

These may be issues some of us face in the US, but they are rare. They are much, much more common- depending on the country- offshore.

Outsourced development has one reputation, outsourced testing another. In many countries testing is considered throw away work- only a vehicle to get the real development work. After one training session I conducted in India, the Engineering manager told me "I never knew testing was a real job. I put my worst staff on testing projects."

- What does this mean for your training?
- 1- You may well be training a much more technically sophisticated or skilled group than your US team.
- 2- You may have to "teach" the *value* of testing.
- 3- You may have to sell testing as a job!

Be a Better Test Lead!

Having an offshore team will increase your workload and increase your management oversight.

But! It will also make you a better test lead!

- It forces you to be more organized,
- Document more
- Communicate better
- Manage change better
- ...

Your Test and Project Process

Define the test and development process to the extent you can

- Set the process, train on the process and stick to it!
- Provide templates
- Show examples
- Make a weekly meeting schedule and stick to it.
- Use your tools
 - Test case manager
 - Bug tracker

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Your Test and Project Process

Use tools to facilitate and increase visibility and information transfer:

- SharePoint, eRoom, project page, blog...
- A must- some kind of document control, VSS, CM tool.

Your Test and Project Process

What Documents should the team expect:

- MRDs
- PRDs
- Test plans
- Test Cases
- Etc.
- Make a checklist since this is often the same from project to project.
- Train on How projects work,
- What to do each week,
- What happens when you get a new build,
- What to do first,
- What to do if, back-up tasks
- Meetings schedule

Setting Expectation

Setting expectation combines communication, trust, and your Test/Dev process

Expectations for:

- Weekly/daily production goals
- Each day do xyz
- On Mondays do this...
- By Friday afternoon do this...

Setting Expectation

for Process:

- How many test cases per week
- How many bugs per week
- What you should expect from us
- What we send you
- When/how.

Setting Expectation

- Why does a smoke test get done first?
- Why do you have to close bugs as soon as possible in a build cycle?
- How often do you do a full regression suite and what does it mean.

Setting Expectation

- How will they know if they are doing a good job?
- Remember, in some countries, many of your employees may be right out of school, it could be their first job or first company setting. Let them know what you expect.
- Setting expectations will provide for more trust.

A few special process topics:

- Change control
- Metrics
- Status reporting
 - Communicating status
 - Status reports
 - Must be uniform and defined

Change Control:

- Talk about how your team manages change.
- Describe the business environment for change.
- This is- in almost every case I have seen- a totally new topic for offshore teams.
- Opinions developed here may not be helpful.

Change Control:

- Importance of
- How to
- Communication of

There are very real probabilities here for problems ranging from hurt feelings to missed bugs!
Anticipate and train to minimize.

Metrics and Measurement

- Let them know they will be measured.
- Training: explain the measurements, what they mean and why you need them, how are they used...
- Remember: "What you measure will increase."
- Whatever measurements or metrics you choose, make sure you are gathering correct information!

Tribal knowledge

What is Tribal Knowledge?

- Learning by osmosis
- Water cooler conversations

Encourage it!

- Plan to facilitate it: build infrastructure, joint participation at meetings, joint document reviews, open and easy phone lines, video conferences
- Work to increase 1-on-1
 communication among team
 members. Don't be the only gate
 through which information can pass.

ISO/Six Sigma/CMM

Great opportunity for failure here:

Don't rely on their text book process for good work!

Has your Dev process been audited to a certain CMM level? If yes, you may need to rely on their processes.

For the overwhelming majority of US companies, all this means is paperwork and no higher quality!

ISO/Six Sigma/CMM

For a variety of cultural, educational and work experience reasons (the mix depending on what country you are talking about), getting your test team thinking out-of-the-box needs creativity training. This is particularly true when you are dealing with staff coming from a CMM mindset.

The type of tester training that happens overseas, if any, is usually not test training but requirements validation training following CMM procedures. These processes are not very common in the US yet are overseas. It is very often shocking for offshore teams to hear many US development teams, frankly, could care less!

Summary: Planning the Trainings

What you just learned:

- Train for communication- build your processes and infrastructure to focus on microcommunication.
- Get your own house in order!
 Train on it.
- Build trust, open doors.



Training the Offshore Team

Understanding
Your Product
Domain/Users
Technologies



Training the Offshore Team

"A cookie store is a bad idea.
Besides, the market research
reports say America likes crispy
cookies, not soft and chewy
cookies like you make." -Response to Debbi Fields' idea
of starting Mrs. Fields' Cookies.



What is your product?

- Internal users? Consumer? B2B?
- Competitors?
- Who uses it?
- What is the skill level of the users?
- For example- accounting product: users may be CPAs and data entry people. What are their accounting knowledge levels? Computer skill levels? Why is this product worthwhile?
- How do they use it?
- Sell your product. Get them excited!
- Don't be boring here!

What technologies is your product built with/on?

- Need to know the 3rd party components?
- Java, c++?
- Session-based or cookie based state?
- Client or server side error checking?
- ...whatever.

Important for:

- Gray box testing
- Leverage tech abilities of staff.

- For most test teams, having a balance between testing from a business user's perspective and testing from a technical perspective is key.
- A good rule of thumb with offshore teams is "hire for technical knowledge, train for business knowledge".
- Plan and budget for extensive training on the product and business domain. It will pay off!

- From end-to-end user scenarios to simple requirement validation, I would not rely on either the current test cases or a user manual as the sole learning tools for domain knowledge.
- Conduct a very interactive training session about the users.
- Set up exercises with mock users from a made-up office where different students will have different roles and tasks in using your product.

- Making credit card processing software in China where banking consultants, McKinsey & Co., estimate fewer than 1 per cent of the country's population has a credit card, and more than half of those accounts are inactive, how can you expect your test team to test from a user's perspective?
- If you are developing stock trading software in Russia, even if one of your testers says they have knowledge of stock trading in Russia, will that be useful for US users or SEC compliance?

"If you have enough monkeys banging randomly on typewriters, they will eventually type the works of William Shakespeare."

Training the Offshore Team
How to Test



Knowledge of Testing and QA, particularly of American-style testing is virtually unknown in the countries most popular for offshoring.

If you *only* train the team to execute your test case database, count on large staff turnover and missed bugs.

Train to test not to validate

Validation- the easy work.

Testing- significantly harder.

Training to sniff out bugs, to hunt for bugs is a skill-building activity that needs planning, materials, hands-on exercises, teamwork, and monitoring.

Developer Testing and Tester Testing

Who are your testers?

- Good Developers don't always make good testers
- Good testers don't always make good developers

How to test training needs to include, depending on the team, basics such as:

- model-based testing,
- equivalence class partitioning,
- forced error testing,
- cause-effect graphing,
- writing user scenario,
- requirements-based testing.

Give your team all the knowledge they need, not only test your product but to understand what testing is about!

Will you rely on this team to do Gray-box testing?

- Attack-based Testing,
- Error Guessing,
- Defect Isolation

You will need to teach effective testing skills if you expect to get effecting testing!

- To have an effective offshore test team you will have to do training on a variety of more abstract topics:
- Exploratory testing style- what it is, how to start, how to measure, when is it most effective,
- Test case design style such as Soap Opera testing- what is it, how to write the test cases,
- Common approaches to breaking software, for example, James Whittaker's "How to Break Software."

What is a Bug?

Tech issues

- What is a bug as a code issue is often different from a bug as a user issue.
 - consider this as you choose what testing to send offshore
- How to test for buffer overflows versus developing effective user scenarios require different training.
- Some developers have no interest in the user experience and are much more fascinated by the system level workings of the code.

What is a Bug?

What is customer satisfaction from a American reference point is very different from understandings of customer satisfaction in many countries.

You have 2 bridges to cross here.

- Developer testers- what is a bug?
- All testers- what is customer satisfaction?

Setting Expectation

Expectation of what is a bug:

- Show an old version of your product or another product, show the types of bugs – validation, data, error guessing, random,
- Give the team old product to test with known bugs. See how they do. Give them an hour with hints/no hints.

The Soft Skills

Tough Training:
English
Political Issues
Cross-Cultural



English

"We are two countries separated by a common language."

Winston Churchill quote on the UK and US.

English skill varies greatly!

- Ireland
- India
- China
- Russia
- Mexico
- Canada
- Philippians
- ...wherever

English

Not much to say here- the offshore team either has enough English skill to make the project a success or the offshore team has enough English skill to give you constant headache. If it is the latter- you better set up an English Training program!

Hint: Taught by American or Canadian- not Brit of Aussie!

English

Hint- you may want to make sure you have some people on the team who were hired because, in addition to other skills, they are excellent English speakers. This is needed for writing bug reports, status reports and ease of phone communication. They may also act as lead or moderator of phone meetings.

Many companies try to hire nationals who have lived in the US or another English-speaking country.

Cross-Cultural

Cross-cultural training How to work with Americans



The Possibilities are Endless!

- How to say "no" (the ability to say "no" varies between cultures)
- How to question a person of authority- for example, questioning the domestic Test Lead may be looked upon as rude in some cultures
- Speaking up to voice opinions and suggestions on testing and process
- How to think "outside the box"
- Understanding group dynamics, from how to do brainstorming, to working with or without group consensus.

Cross-Cultural

Special and delicate training is needed in:

- the importance of getting the whole story and not half truths,
- the importance of building trust and trust being a two-way street.

Do research on your offshore location. Do your homework, anticipate problems, train to fix them!

How to Work with Americans

- Doing business with Americans is probably not a new topic for your offshore team.
- These are usually long rooted, sensitive topics.
- When these differences are described, explained and reasoned through, allaying personal fears and also training US staff on working with their offshore team, the "let's meet halfway" paradigm works well
- It also gives a performance guide to refer and remind against.

Cross-Cultural Glossary

Using Words like:

- Test
- Validate
- Look at
- Deadlines
- Drop-dead date
- Reliability
- Usability,

can be very easily misunderstood or differently understood than your intention. Be as clear as possible- where needed, make a glossary.

Example Training: "No Secrets"

Tackle the Hard Stuff

- Problem (common): You don't want to get incomplete, wrong or missed information because it may be difficult for some team member to deliver.
- During training say: "Don't hold back information, it only makes things worse."
- This is ineffective.

Example: Training on "No Secrets"

Inability to give bad news:

- Especially true in certain countries
- Especially true with outsourcing
- Inability to say "No"
- Inability to admit mistakes and lose face

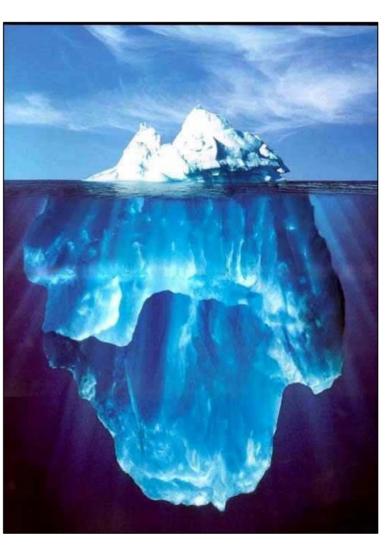
So...

Example: Training on "No Secrets"

I built up images, examples, games, fun, materials...







Did it work?

No, not at first.

BUT! The test lead then managed against it. Gave feedback, immediately, showed what should have happened instead.

In the end- it worked using unconventional, targeted training.

A word about Training and Managing

- Training on a defined process will work...for some people.
- What do you do when the process is not followed?
- Some people will not follow guidelines for any number of reasons.

My suggestion:

- 1- do not retrain the group.
- 2- manage/retrain *only* those who are *not* following the process.
- 3- hope the team gossips (everyone does).

The domestic team also needs training on soft skills and process if the project is to be successful. A key training topic is better communication, including:

- how to conduct virtual meetings
- status reporting
- importance of kickoff meetings
- using IM for trivial communication.

Training you home team should include:

- processes for working with offshore teams
- the importance of sticking to internal team processes
- improving documentation
- build processes, including acceptance testing and transfer
- what to do when the offshore team hits blocking issues and the domestic team is unavailable
- what the offshore team can do during downtime
- how to improve communication
- provide for Tribal Knowledge transfer.

Your home team must be aware of how their behavior will be interpreted by the offshore team.

Americans in team meetings often make jokes, political comments, and openly criticize superiors or management.

Depending on the country, this can be looked upon as disrespectful and never done. I have seen offshore test teams lose respect for the US team based on conversations we may find trivial.

We need to be more aware of our own habits that may create project friction and give training on preventing it where possible.

Use of "He" and "She"/ "Him" and "Her" as well as "it", "that", "them"

Train both teams to use nouns- not pronouns.

Jane will finish the test plan and send it out...

She needs comments on it back by Friday.

Jane needs comments back on the test plan by Friday.

Soft skills example:

- Use training on communication or work ethic to open doors to understanding, trust and communication.
- It is important you do this exercise during training for both the US and offshore teams.

Soft skills example:

- In this exercise you brainstorm the top 5 things that get in the way of excellent work conditions.
- After the brainstorm you then come up with ideas about how to eliminate these issues.
- Promise to bring these problem and solution items back to the counterpart teams.
- Let the teams do the work of developing the ideas of how to train it!

Offshore team in Country X Top 5 issues:

- The US team is always in a rush and telling us to go faster but we cannot make mistakes.
- They forget to tell us things that happen and we get frustrated we do things wrong and want us to work late to fix their forgetting.
- We are so constrained by the test cases they sent us to do we feel bored.
- They are always adding things to the project even at the end. It is a problem they are so unorganized.
- We ask questions and often hear nothing at all back from them.

US-based test team Top 5 issues

- They drop whatever they are doing at noon and go for lunch. Whether in the middle of a meeting or a time sensitive process- it is lunchtime.
- They don't work as fast as we do.
- They are so many questions I cannot get my own work done anymore and am emailing them late into my evening.
- They don't always tell the truth about what is going on. They tell us what we want to hear.
- Women managing men can be difficult in their culture. We have a few women test leads.

- How these items get dealt with will vary depending on team dynamics, company culture and the culture you are dealing with, among other things.
- The point is not that one group drops their cultural imprint on the other group and says "we are right, you are wrong."
- The point is that each team learns how to communicate about these things, works with each other, and helps each other over hurdles.
- We cannot change other cultures overnight, just as they cannot change us overnight.
- We need to be aware of difficult areas, since they are inevitable.
- This more difficult training will decrease stress, improve communication, provide greater work efficiency and have happier teams and greater project success.

What we just learned...

- -English
- -Cross cultural work
- -Training the US team

These may be the most difficult or delicate- but are quite important to reduce headaches!



Set yourself up for Success

Type of Trainings
The Training Material
Exams
Turnover
Easier for you



Types of Learning

Spend time considering the most effective method for training delivery

- Face-to-face
- On-line
- Video
- Reading
- Tribal
- Using it
- Don't think you can send the test case database and have anyone learn from that or effectively test from that.
- Video conferencing: not too successful for interactive learning.

Types of learning:

There must be some face-to-face.

- Q&A
- Get to know team
- Must break formality.
 - -Tell the truth easier
 - Better communication
 - Ask more and better questions

Face-to-face

- Costly
- Time-consuming
- Verbal and non-verbal training
- Weight of importance
- "event" will foster more focus
- Definitely most effective.

- Must review your current training with a fine tooth comb, looking for words like fine tooth comb.
- Don't user your canned trainings.
- Looking for:
 - images,
 - idioms,
 - cultural references,
 - assumed knowledge.

Exploratory Tests



For Exploratory tests the task is finding ways to creatively design experiments.

Exploring, experimenting, going from a known place to an unknown place.

It involves detective work



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Remove from material and your delivery:

- "Low man on the totem pole"
- "Toe the line"
- "Hit a homerun"
- "dead in the water"
- "wishful thinking"
- "like a bat out of hell."

... I have seen these phrases in material or used during training for offshore teams or with nonnative English speakers. Count on misunderstanding!

Soap Opera Testing

The Young and the Restless





All My Children



Soap Opera or Serial Testing



Kittie Party

Kkusum



- Add more games
- Add more exercises
- Use classroom time prepare you for the communication needs of your team.

Example:

- Think of test cases on the fly: put people on the spot if that is what your team needs.
- Brainstorm
- Move around the room.
- Work in teams.
- Ask questions all around the room.

Exercises and Examples:

- Work in the bug database, product and test case manager,
- Set up machines in 4 corners of the room. Break up into teams...
- Work live.

- Time: if you can give your current material in, for example, two days to a new US employee: do not expect you can give this training in two days to an offshore team!
- Train in phases.
- Brain Overload- too many terms, too much material.
 - Send a glossary in advance
 - Leave reference material.
 - Post what you can to your
 Sharepoint/eRoom, Project Portal.

Exams

Crucial!

- Important addition to typical US team trainings- give exams on material given (presented trainings, documents, tools).
- Teams pay more attention when they know they will get tested.
- Exams push people to ask more questions
- You will find out if you are understood!
- Also, who is a good tester or good at English
- Most important: Who needs extra help.

Exams

Note:

- Writing exams is difficult.
- Making them appropriate for your material and as a gauge of comprehension is important.
- Test on tough topics.
- What is a passing grade?
 Failing? What to do if fail?
- Make exams easy to grade. You don't want to spend your nites somewhere grading exams.

What you should expect

- More technically savvy team than US
- More eager
- Greatly differing English and communication levels.
- Change material or plan on the fly. (unplanned examples, local examples, go slower...)

Warning

- IP Loss
- Staff Turnover
- Too many trips

IP Loss

- For most teams, this is not a problem. For some, it might.
- Check with the powers-that-be if there are any limitations to what you can give your offshore team.

Staff

Staff Retention

- Retention is a problem in most offshoring areas.
- Use training as a method of retaining staff.
- Lay out a training program as a Knowledge or career path
- "Certify" your team in your Body of Knowledge.

Staff Turnover

 How can you keep the staff trained with turnover you are certain will happen?

Staff Retention

Training programs on sexy topics like:

- Doing business with Americans,
- English language,
- software development lifecycles and software engineering best practices
- software QA and testing

This can have a very positive effect on staff retention.

Staff Turnover

You need to prepare for inevitable staff turnover.

I hope your test team is not the proving ground for the next developer hires. If it is, count on more training trips.

Begin a train-the-trainer program with your best test team members.

Train-the-Trainer

- Pick the superstar/s in the group:
- Get them extra training, more documentation, PowerPoint presentations, reading material.
- Connect specialist US-team contacts to specific offshore team members.
- Have a bug database expert, a customer expert, a test technology expert, etc.
- I recommend videotaping your training sessions as a tool for train-the-trainer.

Train-the-Trainer

- Pick a few topics to pass-off.
- As you add staff incrementally, you will not have to make trips....

Re-cap

- Analyze your staff.
- Nail down your process and use it!
- Focus on communication infrastructure.
- Training on Product, Users, Domain may be most important.
- Train on How to Test
- Soft Skills are the most difficult but will be the most rewarding!
- Build a program for further new staff.

Offshore Team Training

Q&A

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