Environmental Measurement Symposium – Mentor Session

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Bellevue, WA

TNI Mentor Session

Laboratory Quality: Are You in Jeopardy?

Your Mentor Team

- Dorothy Love – Eurofins Environment Testing Americas
- Aaren Alger – Alger Consulting
- Jeanette Hernandez – San Antonio River Authority
- Michelle Wade – A2LA Workplace Training
- Silky Labie – ELCAT

Agenda

- Quality is in the Eye of the Beholder
  - Mixer
  - Presentation – Dorothy Love
- Jeopardy style game
- Pop-up Presentations - topics
  - Aaren Alger – Key Point for Analysis Reports
  - Jeanette Hernandez – Training Tips
  - Michelle Wade – MDLs/LOQs, Control Limits
  - Silky Labie – Corrective/Preventative Action

Mixer Activity

- Divide the Audience
  - Technical Staff
  - Quality Assurance Staff
  - Agency Representatives
  - Other?? Put yourself where you fit best from your background
  - Remote Attendees – utilize the chat
- Create/share a list of what your group sees as QA responsibilities
- Presentation
  - Quality is in the Eye of the Beholder – Dorothy Love

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Quality is in the Eye of the Beholder

Dorothy Love

August 3, 2021

Defining Quality

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To achieve "Quality" we first need to say what that is in terms that everyone understands.

WHAT???

Everyone? Isn't QA responsible for "Assuring Quality"?

Defining Quality

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Simply put, Quality is figuring out what your customer wants and then doing it.

Doing it right the first time!

The challenges are in the figuring out what you are “doing”, what “it” is and knowing who your customer is.

What is “it” that we are “doing”?



We are labs, right? YES 

We perform tests, right? YES 

We generate results, right? YES 

To have quality, we just need results to be right, right? Uh… 

What is “it” that we are “doing”?

What is “it” that we are “doing”?

Every activity (“it”) in an organization is something you are “doing”.

Examples include:

- **filling a bottle order,**
- **cleaning the laboratory floors,**
- **talking with a client about analyses,**
- **completing your time entry,**
- **prepping standards,**
- **and so on…**

What is “it” that we are “doing”?

To be doing it right you need to know the requirements.

Although the complexity of each activity varies, each process can be analyzed to identify the requirements that need to be met.

One of the most important aspects to accomplishing this is to learn to recognize all of our customers.

Who are your customers?

ABC Oil company?

Anytown USA Wastewater Treatment Plant?

Main St Homeowner John Doe?

XYZ Manufacturing?

Government Agencies?

Who are your customers?

Who are your customers?

When you think of your customer, we typically think of the person or company who submits the samples, receives the reports and pays our invoices.

But, in most cases, your direct customer is internal to your organization.

Who are your customers?

- A technician who uses clean glassware produced by a lab assistant is an internal customer to the lab assistant.
- The data reviewer is the internal customer to the data analyst.
- All lab staff are internal customers to the maintenance and cleaning staff.

This is why Everyone is responsible for ensuring quality.

Defining Requirements

Communicating the internal customer concept to each of your staff is critical to creating quality operations and products in your organization.

This is where "Quality is in the Eye of the Beholder" comes in ☺

You might think you are providing a quality product or service; however, if you don't really know what the customer wants/needs you could be off base.

Defining Requirements

Requirements describe how the customer expects the outputs to be when the process is completed.

Each process may have several customers (internal and external), and each customer may have several requirements.

Everyone involved in the process must fully understand all the requirements.

Defining Requirements

Communication is key.

When was the last time your department heads met one-on-one with each other to evaluate how things are going?

When did you ask the bench level staff, your project managers, your data deliverable team if they get all that they need (what, when, and how) each time work is passed to them?

Defining Requirements

As suppliers of a service, it is our job to identify our customers, find out what their requirements are, and to work to meet them every time.

As customers for our co-workers processes, it is our job to clearly communicate our own requirements to them.

Once the requirements have been defined and everyone understands them, “doing it right” is relatively easy.

Defining Requirements

Again, this is where “Everyone” gets involved. This is not a QA function.

Ideally, it should be a formal process driven by lab management. However, it can also be driven by each employee working with the people in the processes that come before and after them.

Give your staff guidance, instructions, and tools and see what they come up with. Encourage them to be proactive.

Philip Crosby's Process Model Work Sheet

PROCESS NAME

PROCESS FLOW

PROCESS OUTPUT

PERFORMANCE STANDARDS	WHO DEFINES	REQUIREMENTS
Quality		
Cost		
Schedule		

PROCEDURES	WHO DEFINES	REQUIREMENTS

PROCESS SCOPE

INPUTS	SUPPLIERS	REQUIREMENTS
Materials		
Information		

INITIAL ACTIVITY

FINAL ACTIVITYA

OUTPUTS	CUSTOMERS	REQUIREMENTS

FACILITIES & EQUIPMENT	WHO PROVIDES	REQUIREMENTS

TRAINING & KNOWLEDGE	WHO PROVIDES	REQUIREMENTS

Process Modeling

Basically, the modeling process can be broken down into 8 steps:

1. Name the process you are trying to analyze
2. Define the specific part of the process to analyze from the initial activity to the final activity
3. Look at the final activity and identify the outputs
4. Decide who uses your outputs (these are your customers)
5. List the expectations or requirements of each customer
6. Identify the inputs to the process
7. Determine who your suppliers are (information and materials)
8. List the requirements for your inputs

Process Modeling

It is important to identify all requirements when setting up a new work process.

Processes also have to be reviewed for changing requirements, which may be caused by customer requests, changes to government regulations, new technologies, market changes.

When one process changes, you need to evaluate the correlating before and after processes to see if they are impacted as well.

Side Benefits

Making use of Process Modeling; asking your internal and external customers what they need; and telling your internal and external suppliers what you need are means of determining corrective actions needed to address issues that occurred.

It will also serve for prevention of issues.

Routinely reviewing your processes will help to identify situations that can prevent misunderstandings, nonconformances, opportunities for error.

Quality is in the Eye of the Beholder

Ensuring everyone has what they need in all your processes will build quality into each process. This is turn will ensure the final output to the ultimate end user will be a quality product.

Everyone needs to do their part.

What tools do you have in place?

Who drives the need to quality?

Quality Drivers

Did you know…

- **The term "quality manager" appears in the TNI Standard 9 times**
- **The term "technical manager" appears in the TNI Standard 24 times**

How many of your technical managers have read the TNI Standard? How many employees have read it?

As TNI members, we should have as a goal in all our organizations, the concept that employees have individual responsibility for quality.

Quality Drivers

In 1989, Lancaster Laboratories, Inc., under the direction of Earl Hess (the lab founder and president), senior management identified 13 people to send attend a “Quality College” training. One was the QA manager but the others were leaders within the organization. Earl formed a Quality Improvement Team. He understood that Quality needs to come from and through everyone, not just QA.

The full management team was trained on these concepts in Nov/Dec 1989. By Fall of 1991, the company had dedicated over 7000 hours of time to teach close to 400 employees the concept of the individual’s role in making quality happen.

Quality Drivers

To ensure your lab's quality is not in Jeopardy, all leadership must:

1. **Educate yourself**
2. **Drive the quality principles**
3. **Walk the walk**
4. **Educate and empower your employees**
5. **Repeat steps 1 through 4**

Conclusion

"Quality is free. What costs money are the unquality things – all the actions that involve not doing jobs right the first time."

Philip Crosby

Questions/Comments?

Dorothy Love

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Next up…

- **BREAK**

- **Be sure to return for fun and games!!**