Developed by educators at the Emily Griffith Opportunity school, this teacher's guide presents a 2-hour workshop to introduce employees in entry-level positions to the concepts and vocabulary of Total Quality Management (TQM). The guide is divided into an instructor's section and a section of 24 handouts for the participants. (Handouts can also be used as flipcharts or overhead transparencies.) Topics covered include the following: what is TQM?; how good is good enough?; TQM and the healthcare system; why TQM should be used; four parts of TQM; empowerment; defining and solving problems; brainstorming; and team roles and processes. (KC)
TQM AWARENESS TRAINING FOR HEALTHCARE

John Cleary
Dee Sweeney

Emily Griffith Opportunity School
1250 Welton Street
Denver, Colorado 80204

June 30, 1994
TQM
AWARENESS TRAINING FOR
HEALTHCARE

The activity which is the subject of this report was supported in part by the U.S. Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Department of Education or Emily Griffith Opportunity School, Denver Public Schools, and no official endorsement by these agencies should be inferred.

© 1994 by
Workplace Education Project
Emily Griffith Opportunity School,
Denver Public Schools
All Rights Reserved
Denver, Colorado

John Cleary
Dee Sweeney

June 30, 1994
This module was developed by educators from Emily Griffith Opportunity School as part of a National Workplace Education grant funded by the U.S. Department of Education. A cooperative effort between the business and education communities, the program was designed specifically to enhance employees' literacy skills.

Direct benefits to the workforce include improved morale and motivation, self-esteem, team work, and promotional opportunities.

We gratefully acknowledge the assistance of our partners. In addition we recognize all of the students who participated in classes and who provided us with invaluable feedback for strengthening future classes.

We hope partnerships such as these will provide the catalyst for developing new or continued on-site educational opportunities.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>iv</td>
</tr>
<tr>
<td>Section 1 - Instructor's Notes</td>
<td>1</td>
</tr>
<tr>
<td>Handouts</td>
<td>23</td>
</tr>
</tbody>
</table>
FOREWORD

What is TQM?

What is expected of me?

Why do we have to do this?

This 2-hour workshop targets employees in entry level positions and is designed to introduce them to the concepts and vocabulary of Total Quality Management (TQM).

The curriculum is divided into an instructor's section and a section of handouts for the participants. The handouts can be used as is or may be converted to flipcharts or overheads.

The instructor is given directions for presenting the material, but the workshop can be modified to suit a specific audience or teaching style. Participants should be encouraged to speak up and ask questions at anytime during the presentation.

Participants are expected to improve their understanding of TQM concepts and terminology. This is only a first step in an educational component for implementing TQM into the workplace.
INSTRUCTOR'S NOTES

INTRODUCTION

Instructor's note: Refer to Handout 1

TQM, Deming's 14 points, empowerment, Quality Improvement Team... These are words frequently heard in the workplace. If you are not familiar with this special terminology, you may not feel comfortable with using it. That's exactly why the members of the Partners for Excellence Team at Saint Anthony Central Hospital (SAC) and the Emily Griffith Opportunity School (EGOS) Instructors have put together this program called Total Quality Management (TQM) Awareness Training. This training program is designed to present the first step in increasing your knowledge and understanding of TQM as it applies to SAC.

This is an overview of TQM; more in-depth understanding requires more than one, two-hour session.
SESSION 1

HOW GOOD IS
GOOD ENOUGH?

Instructor's note: Refer to Handout 2

Usually we think about this question with 100% as tops and anything above 95% as more than good enough.

GOOD ENOUGH?

Instructor's note: Refer to Handout 3

Although we say 100% is our goal, we believe 99% would be more than adequate in most cases. Let's see what we get from accepting 99% quality as our goal.
Why have so many health care providers become involved in TQM? They are driven to TQM for the most basic of reasons... survival!

The rapidly changing and uncertain future of health care in America, discriminating consumers, shrinking budgets, reduced manpower, and increased competition, all face St. Anthony Central Hospital.

The Total Quality Management approach allows hospitals to maintain their current level of care. Also, it encourages more productivity by fewer employees. Finally, it allows greater competition for the finite pool of patients.

The health of the individual employee is dependent on the health of the whole system and vice-versa.

Keep in mind that this particular hospital is embracing TQM to strengthen its effectiveness. If the company does well, the employees do well.
Let's improve our understanding of TQM by looking at the four parts of TQM.

1. Customer Responsiveness

2. Quality: as defined by the Customer

3. Continuous Improvement Process: The struggle to improve quality must be an on-going process

4. People: Employees are needed for their knowledge of the process.
WHY TQM?

Instructor's note: Refer to Handout 6

Why should we bother with TQM anyway? What did "made in Japan" mean 30 years ago?

Instructor's note: Ask participants to respond to this question. Possible answers include cheap, no good, not dependable, and throw away.

What does "made in Japan" mean today?

Instructor's note: Ask participants to answer this question. Possible answers include well-built, solid, dependable, and top-of-the-line.

Instructor's note: The purpose of this exercise is to show the participants that they are responsible for improving "the system" just as the Japanese did 30 years ago.
Once we have an idea of why TQM is important and what TQM is all about, the next issue is... how do we achieve our purpose?

Implementation has the following requirements:

1. An educational component

2. An understanding of the techniques involved in PDCA. (see page 34)

3. A change in culture

The first requirement is an educational program beginning with this TQM workshop. This workshop is only the first step in the educational process. Many of you will receive additional training in the process such as meeting management techniques, consensus decision process, etc.

The second requirement is an understanding of techniques necessary to engage in process improvements. Some of these will be introduced in the team concept section. This is also an on-going process.

(Continued on next page)
The third element necessary for implementing quality is for each of us to become an active participant in this process. This will mean a change of culture.

**STARTING TQM**

_Instructor's note: Refer to Handout 8_

You should explain what these terms are and ask the participants if they have questions.

Let's look at some thoughts on what is TQM and what TQM isn't. TQM is not an overnight cure performed by subordinates. It is a never-ending process that is produced by actions and must be practiced by everyone.

**TQM/EMPOWERMENT**

_Instructor's note: Refer to Handout 9_

This workshop has introduced you to TQM. We looked at what TQM is and why it will benefit you at SAC. You are the key to bring this program into the culture. By empowering each of you to perform, change, improve, and measure your responsibility, these principles of TQM will be used in all areas of your operation.
Instructor's note: Refer to Handout

Employees must participate to make this work. Each person needs to learn these principles and apply them to the employee's individual area of responsibility to begin this process of continual improvement.
We're suggesting that we are embarking on a new way of doing our business - a new game, so to speak. When you decide to learn a new game, usually someone tells you about the game - what the objective is, what the rules are, how to keep score, special terminology used, dress requirements (i.e., football pads, cleats, helmets) and playing strategies.

That's what we're here for today - to give you basic information about the game of quality management. But you and I both know that learning about the game of football does not a perfect football player make. The same is true with this game. In football there are coaches for practice sessions, and even though some practice time is spent studying strategies, the heart of learning the game comes from playing on the field with coaches providing help, direction, and feedback. And of course, the players, as they try out new things, contribute mistakes along the way.

So let's talk about this quality game. First,

(Continued on next page)
when you play any game, does it work to play half-heartedly? No. What works is full participation. The same is true here.

In football, are you expected to be able to do everything? No. You have a specialized role and specialized coaching. BUT, can you do what you do without regard for the rest of the team? No. Does everything you do, or don't do, make a difference to the team's results? Yes.

Is it important to keep score? How else do you know who is winning? Does everyone keep score? No, it's one of the many small jobs that are vital to the whole effort. Having someone handle scoring frees up everyone else to do his/her job.

Is a game played systematically? Yes. The rules, dress, scoring, and terminology aren't up for vote every time another game is initiated - they stay constant. It's part of what makes a game work.

So let's talk about how this relates to the game of quality.
PDCA

The quality management process is a very systematic way of approaching doing business, and it includes some changes from the way we are used to operating. Why is it useful to get everyone using the same system? Doesn't it take away freedom to think?

Well, let's look at an analogy to answer that question. What, if in football, the meaning of the rules changed each game, and each team used its own scoring system and terminology? Instead of being able to focus on winning strategies, most of the time would be taken up dealing with misunderstandings and confusion. Such "freedom" would actually get in the way of playing football.

So in the game of TQM, having a systematic approach, terminology, and rules in business enable us to get on with serving the customer. It gives us common approaches to problem solving, and frees us up to creatively work on solutions.

Instructor's note: Refer to Handout 11
There are 4 key components to the problem

(Continued on next page)
solving process, Plan, Do, Check, and Act. Have you been hearing people talk about PDCA? Well, it stands for plan, do, check, and act. It represents a systematic approach to problem solving and on-going process improvement.

Of the four steps in this approach, the most time and effort goes into planning. So that we don't just throw a bunch of words at you and send you away, we'd like to take this opportunity to walk through this problem solving process with you, applying it to a specific concern.

**Instructor's note: Refer to Handout 12**
So here's our problem. Our goal is to have all phone calls promptly answered and handled. In fact, people end up being put on hold, the phone is not answered within the first three rings, and sometimes a person gets voice mail.

Shall we get right in to possible solutions? Or are there a couple of things to do first?

**Instructor's note: Refer to Handout 13**
The first question is if this is an appropriate problem to be working on? How would we know?
1. Is it customer centered? How could you tell this?
2. Does the problem have a significant impact? (severity and frequency, who is affected, consequence) What might be indicators?

3. Does this problem make sense to work on in light of the goals and objectives of SAC? What are the indicators? (customer service, quality of service)

Instructor's note: Refer to Handout 14
So, would this be an appropriate problem to solve?

So now we can solve it. What might some of the causes be of this problem? This is a place we might use brainstorming to come up with possible causes. (Too few operators, not enough phones, not a good enough phone system, talking too long on each call, having other responsibilities, not enough training).

Instructor's note: Refer to Handout 15
Brainstorming helps to get ideas flowing. It is a round table discussion with a few easy rules.

How can you know which cause is the most likely cause? After all, what is the consequence of guessing wrong - wasted money and time?

(Continued on next page)
This is where information gathering comes into play. Many of us immediately think of rows of numbers, complex charts and graphs when we think of information gathering. And it seems like the work of somebody else, probably a specialist.

But once you've decided on your problem, you, the team, are the best qualified to determine what information would be helpful in determining the real problem.

So let's brainstorm for a minute on this problem. We have lots of possible causes. What information would be helpful in determining the root causes - the one or ones most important to fix?

**Instructor's note:**
(Answers should include a definition of the actual goals in handling calls, number of calls received, when, how many people available at various intervals, average length of call, who calls and for what, etc.)

There are several standard formats for presenting information that has been gathered. Standard formats are used so that we can communicate more easily than if we all do something differently. In this example, part of the information we want is numbers or statistics. These three pages all show the same information.

(Continued on next page)
Instructor's note: Refer to Handout 16
On Handout 16, we have an actual answered-call profile from admissions. You see only numbers and no obvious relationships.

Instructor's note: Refer to Handout 17
On Handout 17, we have a bar graph showing data taken from the answered-call profile. The horizontal time axis at the bottom come from the first column of the answered-calls profile and the vertical number of calls column on the left comes form the second column of the answered-call profile. This bar graph shows the distribution of the number of calls and the time of day they were answered.

Instructor's note: Refer to Handout 18
This line graph, like the previous bar graph, has the same information the vertical and horizontal axes. But, it has a different visual presentation. Which do you like better? Why?

Instructor's note: Refer to Handout 19
This circle or "pie" graph is displaying the percent of calls for each time slot. The percents were obtained by dividing the number of calls answered in each time period (see the second column) by 175 or the total number of calls answered.

(Continued on next page)
What do these charts show that looking at raw numbers does not?

Based on information gathered, you isolate the most probable cause - machines, material, methods, and people. It is useful to keep asking the question, why, why, why?

Next you identify possible corrections and choose which to test. Your plan to implement the correction needs to consider possible aids and barriers; it needs to be realistic. It may impact one or more of the following areas: effectiveness, efficiency, cost effectiveness, training, manpower, equipment, acceptability, time, and practicality.

Now, after this substantial planning phase, we are ready to "DO" the correction. But armed with date and careful analysis, our time will be well invested. An important part of implementing the change is to get feedback and continue collecting relevant data. At the end of the test period, we will need to be able to assess the effectiveness of the change and any unintended consequences.

Next, we CHECK it, comparing old and new data. Did we meet our target, did we get our predicted results? If not, then what would we do? Start the process again.

(Continued on next page) 22
Assuming that we have predicted the desired results in our test, then we need to move the implementation from a test situation into the organizational ACTION. This involves the following steps:

1. Obtaining senior management approval
2. Assigning organizational responsibility and reporting schedule
3. Making sure that control systems are in place
4. Assuring on-going organizational integration by addressing policies, procedures, and training
5. Creating a communication plan to inform customers and employees
6. Summarizing and reporting

You can see that the data collected and organized that is used by the team to make its recommendations would be invaluable in this last step. When convincing people that a change is appropriate, there are facts and figures to rely on, rather than gut instinct.
TEAM ROLES AND PROCESSES

Instructor's note: Refer to Handout 20

Musts for team-based problem-solving.

Consensus is a decision-making process based on facts, data, and team input to produce solutions. If done properly, it will produce a general agreement by a group about a particular subject.

CONSENSUS DECISION-MAKING

Instructor's note: Refer to Handout 21

Compare and contrast consensus decision-making with the other way of doing business. Ask participants for examples from their jobs.

Let's look at what consensus decision-making is and what it isn't.
To ensure that people get together in a manner that will produce the intended outcomes, a meeting needs to be planned and organized according to a PLANC. A PLANC should be easy to use and follow and will keep all members focused on the why, what, and how of the meeting.

Go over the material and give examples of some of the material. Example: "What's said here, stays here." Participants must feel free to express themselves without fear of repercussions later.

An effective group process is guided by "rules of behavior" which should be adapted for each team's values.
SESSION 1

TEAM ROLES

Instructor's note: Refer to Handout 24

Team member

Team members should do the following:

1) Fully engage in team activities

2) Participate in team discussions and problem-solving efforts

3) Share opinions about their ideas and processes

4) Follow the rules of the process or techniques being used. Such as suspending all judgments while brainstorming

Remember: Your participation is important. You matter!!!

Leader

The team leader should do the following:

1) Bring together problem-solving resources such as the PDC\', problem-solving process with the team members.

(Continued on next page)
2) Lead the meeting toward its goal by establishing a PLAN.

3) Provide a sufficient plan to enable the team to move toward a solution of a problem.

Scribe

A team scribe is the team member responsible for writing the team's ideas, suggestions, and discussion on a flipchart or chalkboard.

Hints for a scribe

1) Record thoughts or ideas word-for-word

2) Write in large, block letters

3) Put a title on each flipchart page or chalkboard

4) Ask clarifying questions of participants before writing to make sure you understand

Recorder

A team recorder takes the minutes of the meeting and later distributes them to all team members.
CONCLUSION

That's an overview of the process and some of the why's behind it. Quality management is a way of life, a philosophy of doing business. PDCA is a specific way to do it - it provides a consistent structure in which to move forward. As we move forward in this process, we will have the opportunity to participate and learn "on the field" - or on an active team. Every team has experienced players, a coach and less experienced players. It is a place to learn and grow and contribute to the quality of the organization.
HANDOUTS
INTRODUCTION

DEMING'S 14 points

Empowerment

Quality Improvement Team

TQM

What is this quality stuff anyway?
HANDOUT 2

TQM

How good is good enough?

90%

95%

99%

100%
TQM

What you'd get from "99%" Quality

- a minimum of 20,000 wrong prescriptions each year
- At least 15,000 newborn babies accidentally dropped by doctors and nurses each year
- Nearly one hour of unsafe drinking water each month
- Two bad landings at O'Hare International Airport each day
- Almost 500 incorrect surgeries per week

Adapted from U.S. Air Force Quality Awareness Training Lesson Plan
TQM

HEALTHCARE SYSTEM

- Fast Changing World
- Uncertain future
- Discriminating consumers
- Shrinking budgets
- Reduced manpower
- Increased competition

These are reasons to use TQM
TQM

FOUR PARTS OF TQM

I. Customer Responsiveness

II. Quality (as determined by customer)

III. Continuous Process of Improvement

IV. People (for their knowledge of the process)
WHY TQM?

What did “made in Japan” mean 30 years ago?

What does “made in Japan” mean today?
TQM

Implementing Quality: What is needed?

- Education Component
- Understanding of the technique included in PDCA
- Change in culture
WHAT QUALITY IS/IS NOT

TQM is:
* Systematic
* Customer focused
* Long Term
* Done in increments
* Pro-active
* A way of doing business
* Process (continuous, never ending)
* Conveyed by action
* A culture change
* Practiced by everyone
* Based on fact

TQM isn’t:
* An overnight cure
* Delegated to subordinates
* Short term
* Fighting Fires
* New Program
* A specialist Discipline
* Reactive
* Shoot from the hip

TQM AWARENESS TRAINING FOR HEALTHCARE
TQM

EMPOWERMENT

• The key to a quality program is you

• You matter

• You make a difference
- Everyone is involved in TQM. Team members, customers, managers who encourage trust and creativity, trained and motivated individuals, patients, and you.

- each individual is important

- contributions actively sought, recognized, rewarded

- This won't work without you.

- You matter!
THE PDCA PROBLEM-SOLVING PROCESS

1) Systematic
2) Focus on plan
3) Data based
WHAT'S THE REAL PROBLEM?

- An objective problem statement (free of cause or solution)
- A statement describing the desired state (usually with quantifiable goal for improvement)
Is It A Problem That Should Be Solved?

1. Customer centered?

2. Significant impact?

3. In line with unit and hospital goals & objectives?
Cause And Effect Diagram
(Fish Bone Diagram)

WHY?   WHY?   WHY?   WHY?   WHY?
BRAINSTORMING

1. Short and sweet

2. No criticizing/voting

3. Anything goes

4. Fast paced - pass if no immediate response

5. Clarify all ideas as required (no voting!)
# ANSWERED CALL PROFILE

**ACD Group Admission**

**September 28, 1993**

<table>
<thead>
<tr>
<th>Time of day</th>
<th>No. of Calls</th>
<th>From ACD</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>05:30-06:00</td>
<td>3</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>06:00-07:00</td>
<td>6</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>07:00-08:00</td>
<td>6</td>
<td>0</td>
<td>83</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>08:00-09:00</td>
<td>18</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>09:00-10:00</td>
<td>21</td>
<td>0</td>
<td>81</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>10:00-11:00</td>
<td>26</td>
<td>0</td>
<td>88</td>
<td>96</td>
<td>96</td>
<td>96</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>15</td>
<td>0</td>
<td>87</td>
<td>93</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>8</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>13:00-14:00</td>
<td>9</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>18</td>
<td>1</td>
<td>94</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>15:00-16:00</td>
<td>11</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>16:00-17:00</td>
<td>24</td>
<td>1</td>
<td>79</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>17:00-18:00</td>
<td>10</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>18:00-18:00</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>175</td>
<td>2</td>
<td>91</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>99</td>
</tr>
</tbody>
</table>
TELEPHONE CALLS
(BAR GRAPH)

Number of Calls

Time

5:30-6:00 6-7 7-8 8-9 9-10 10-11 11-12 12-1 1-2 2-3 3-4 4-5 5-6 6-7

3 6 6 18 21 26 15 8 9 18 11 24 10 0

30 25 20 15 10 5 0
TELEPHONE CALLS
Pie Chart

Outer numbers = hour of the day
Inner numbers = % of calls received during each hour
Team Roles & Process

Musts for team-based Problem-Solving

Meeting Structure

Meeting Process

Meeting Roles
Consensus Decision-making is:

* Win/Win
* Result is Consensus
* An increased quality of decisions
* Improved group buy-in

Consensus Decision-making isn't:

* Win/Lose
* Result is authoritarian, majority, participative decision-making
* Decisions made from incomplete analysis
* Lack of support and political sabotage
PLANC

PURPOSE

LIMIT

AGENDA

NEXT, ... meeting, step, agenda

CRITIQUE

Need high level of involvement of all members

Processes used to ensure quality decisions

Thoughtfully planned and organized

Benefits of PLANC

Easy to use and follow

Keeps members focused on why, what, and how of meeting

Sets clear limits on length of conversation

Provides critique time to improve process or content of meeting
MEETING PROCESS

* Respect each member

* Said here, stays here

* Focus on facts

* Golden rule

* Stick to the subject

* Participate

* Start & end on time

* Communicate

* Leave your stripes at the door

* Enjoy
**LEADER** - Brings together problem-solving resources to help a team move toward the improvement of a problem or process. Leads the meeting according to the PLANC (Purpose, Limits, Agenda, Next Steps, and Critique) method.

**MEMBER** - Fully engages in team activities, provides input to team discussions and problem-solving efforts, cordially shares opinions about ideas and processes, and follows the rules of the processes or techniques being used.

**SCRIBE** - A team member responsible for contributing ideas, opinions, and the like, and also the person responsible for insuring the team’s ideas, suggestions and discussions are written on flipcharts to record the group’s thought processes.

**RECORDER** - Takes the minutes of the meeting, distributes them to team members, and posts them.

These rules make sense; it helps to have them...