



IE407 Total Quality Management

Lecture 06



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Reminder: SA grade

- ▶ SA grade will be determined by the attendance system
- ▶ More than 8 absents will automatically lead to SA grade
- ▶ Please be careful about your attendance in lectures





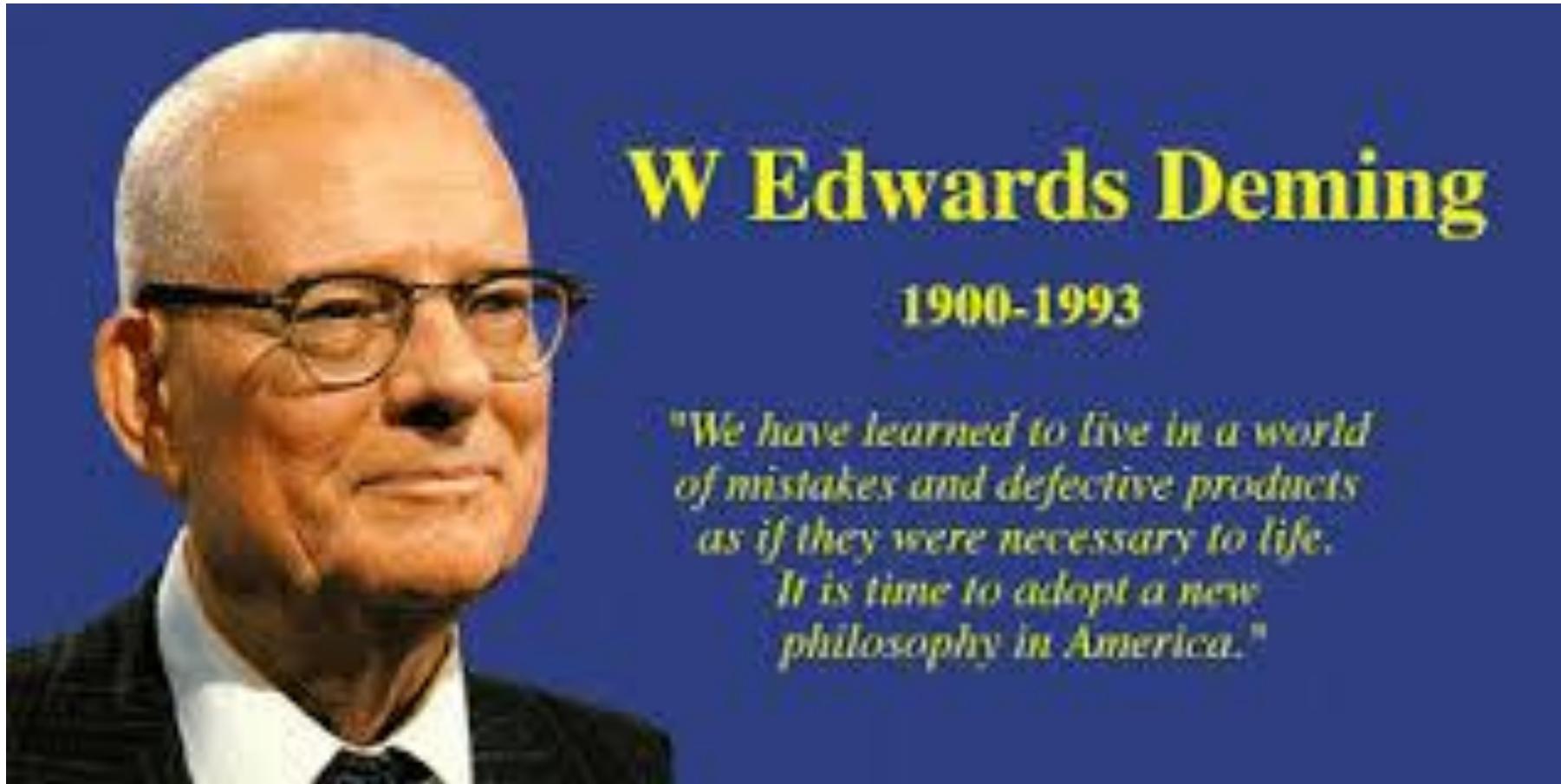
Besterfield Chapter 2: Leadership



The Deming Philosophy

Deming's philosophy is summarized in his 14 points

W. Edwards Deming



Source: <https://www.linkedin.com/pulse/demings-14-points-alex-hutchins>



1. Create and Publish the Aims and Purposes of the Organization

- ▶ The aims should include a quality philosophy and cater for the interests of the investors, customers, suppliers, employees, and the community
- ▶ Long-range goals must be set and a plan to stay in business for at least ten years must be made
- ▶ Resources must be allocated for research, training, and continuing education to achieve the goals set



2. Learn the New Philosophy

- ▶ Everyone including top management should learn the new philosophy
 - ▶ Never ending improvement
 - ▶ Refusal to accept nonconformance
- ▶ Customer satisfaction is the number one priority
- ▶ Concentrate on defect prevention rather than defect detection
- ▶ The suppliers must be helped to improve quality by requiring statistical evidence of conformity



3. Understand the Purpose of Inspection

- ▶ The purpose of inspection is to improve the process and reduce its cost
 - ▶ Mass inspection is costly and unreliable
 - ▶ Mass inspection is managing for failure
 - ▶ Defect prevention is managing for success
- ▶ Where appropriate, inspection should be replaced by never-ending improvement using statistical techniques



4. Stop Awarding Business on Price Alone

- ▶ Price has no meaning without quality
- ▶ Stop the practice of awarding business solely on the basis of lowest bid
- ▶ The goal is to develop a long-term relationship of loyalty and trust with the suppliers
- ▶ Purchasing agents must be trained in statistical process control and they should require it from suppliers



5. Improve Constantly and Forever The System

- ▶ Quality and productivity must continually and permanently improved and costs reduced by actively finding and correcting the root causes
 - ▶ The focus should be on preventing problems before they happen
 - ▶ Variation is expected but continuous efforts should be made for its reduction using control charts
 - ▶ Teams should be assigned the responsibility to remove the causes of problems and continually improve the process
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6. Institute Training

- ▶ Management must allocate resources to train employees
 - ▶ Each employee must be oriented to the organization's philosophy
 - ▶ Everyone should be trained in statistical methods
 - ▶ Statistical methods should be used to monitor the need for further training



7. Teach and Institute Leadership

- ▶ Supervisors must be trained in statistical methods and these 14 points for implementing the new philosophy
- ▶ Supervisors should learn to avoid negative, fault-finding atmosphere and create a positive, supporting environment
- ▶ All communications should be clear from top management to supervisors to operators



8. Drive Out Fear, Create Trust, and Create a Climate For Innovation

- ▶ Management must encourage open, effective communication and teamwork that is free from fear
- ▶ Fear is caused by
 - ▶ Lack of job security
 - ▶ Possible physical harm
 - ▶ Performance appraisals
 - ▶ Ignorance of organizational goals
 - ▶ Poor supervision
 - ▶ Not knowing the job
- ▶ When people are treated with dignity, fear can be eliminated



9. Optimize the Efforts of Teams, Groups, and Staff Areas

- ▶ Barriers exist internally among
 - ▶ Levels of management
 - ▶ Departments
 - ▶ Within department
 - ▶ Among shifts
- ▶ Barriers exist externally between the organization and its customers and suppliers
- ▶ Barriers are caused by
 - ▶ Poor communication
 - ▶ Ignorance of the organization's mission
 - ▶ Competition
 - ▶ Fear
 - ▶ Personal grudges or jealousies



10. Eliminate Exhortations for the Work Force

- ▶ Exhortations ask for increased productivity without providing specific improvement methods
 - ▶ They do nothing but express management desires
 - ▶ They do not produce better product or service
- ▶ Goals should be set that are achievable
- ▶ Improvements in the process cannot be made unless the tools and methods are available



11a. Eliminate Numerical Quotas for the Work Force

- ▶ Quotas and work standards focus on quantity rather than quality
 - ▶ Quotas encourage poor workmanship
 - ▶ Quotas should be replaced with statistical methods of process control
- ▶ Management must provide and implement a strategy of never-ending improvement



11b. Eliminate Management by Objectives

- ▶ Management by numerical goal is an attempt to manage without the knowledge of what can be done
 - ▶ Management must learn the capabilities of the processes and how to improve them



12. Remove Barriers That Rob People of Pride of Workmanship

- ▶ Causes for the loss of pride in workmanship
 - ▶ Workers do not know how to relate to the organization's mission
 - ▶ They are being blamed for system problems
 - ▶ Poor designs lead to the production of 'junk'
 - ▶ Inadequate training is provided
 - ▶ Punitive supervision exists
 - ▶ The equipment provided is inadequate or ineffective to perform the required work
- ▶ By restoring pride, everyone in organization will be working for the common good
 - ▶ When workers are proud of their work, they will grow to the fullest extent of their job



13. Encourage Education and self-Improvement for Everyone

- ▶ Management must make a long-term commitment to continuously train and educate people
 - ▶ Deming's 14 points and the organization's mission should be the foundation of the education program
 - ▶ Retraining should be provided when requirements change



14. Take Action to Accomplish the Transformation

- ▶ To accomplish the transformation the management should create a corporate structure for implementing the philosophy
 - ▶ A cultural change is required
 - ▶ Management must be committed, involved and accessible



References

- ▶ Besterfield, Dale H. and others. 2019. *Total Quality Management*, 5th edition. Pearson India



References

- ▶ Besterfield, Dale H. and others. 2019. *Total Quality Management*, 5th edition. Pearson India
- ▶ Besterfield, Dale H. *Quality Improvement*, 9th edition, Pearson

