

MANAGING TECHNICAL PROFESSIONALS



INSTRUCTOR GUIDE
4-HOUR COURSE

I-RDQ[®]

MANAGING TECHNICAL PROFESSIONALS

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Instructional design and learning philosophy

We are committed to providing the best core-skills content possible for Instructor-Led Training (ILT). The following principles are applied in the development of programs:

Sound Instructional Design

All course content is developed using a variety of research techniques. These include:

- Brainstorming sessions with target audience
- Library research
- Online research
- Customer research (focus groups, surveys, etc.)
- Subject Matter Experts (SME)
- Interviews with trainers

Expert instructional designers create imaginative and innovative solutions for your training needs through the development of powerful instructional elements. These include:

- Learning objectives — effective tools for managing, monitoring and evaluating training
- Meaningfulness — connects the topic to the students' past, present, and future
- Appropriate organization of essential ideas — helps students focus on what they need to know in order to learn
- Modeling techniques — demonstrate to students how to act and solve problems
- Active application — the cornerstone to learning — helps students immediately apply what they have learned to a real-life situation
- Consistency — creates consistent instructions and design to help students learn and retain new information
- Accelerated learning techniques — create interactive, hands-on involvement to accommodate different learning styles

Application of Adult Learning Styles

Adults learn best by incorporating their personal experiences with training and by applying what they learn to real-life situations. Our experienced instructional designers incorporate a variety of accelerated learning techniques, role-plays, simulations, discussions, and lectures within each course. This ensures that the learning will appeal to all learning styles and will be retained.

Course timing

Chapter One: The Role of a Technical Manager

Type of Activity	Segment	Time
	Concerns	10
	A new perspective	5
	Six unique challenges	10
	Components of success	5
	Managing former peers	5
	The trade-offs	2

Course timing

Chapter Two: Dynamic Listening

Type of Activity	Segment	Time
	Listening at its finest	10
	Common language	10
	When egos collide	15
	Personality factors	15
	10 minute break	

Chapter Three: Coaching Employees

	Why “waste” time coaching employees	10
	When learning happens	10
	Successful coaching	25
	Cross training	5

Course timing

Chapter Four: Rewards and Motivation

Type of Activity	Segment	Time
	What moves people	15
	Types of motivation	5
	Employee performance	15
	Key motivators	10
	Tactics to motivate	5
	Dual ladder approach	5
	Jumpstarting a stalled project	5

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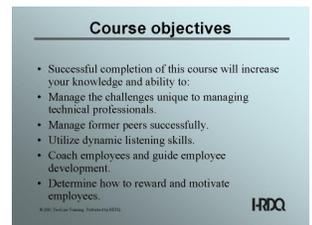
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Course objectives

Successful completion of this course will increase your knowledge of and ability to:

- ◇ Manage the challenges unique to managing technical professionals
- ◇ Manage former peers successfully
- ◇ Utilize dynamic listening skills
- ◇ Coach employees and guide employee development
- ◇ Determine how to reward and motivate employees



Chapter One



THE ROLE OF A TECHNICAL MANAGER

The role of a technical manager

Successful completion of this chapter will increase your knowledge and ability to:

- Handle the six challenges unique to managing technical staff.
- Transition successfully from peer/co-worker to manager.
- Identify the positive aspects and the trade-offs of a management position.

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Learning objectives

Successful completion of this chapter will increase your knowledge and ability to:

- ◇ Handle the six challenges unique to managing technical employees
- ◇ Transition successfully from a peer/coworker to manager
- ◇ Identify the positive aspects and the trade-offs of a management position

A new perspective

This table highlights the two different perspectives and the different requirements for success. Facilitate a discussion about the different skills required in technical positions versus management positions. Ask: "Based on these differences, what skills does the manager need that the technical employee does not?" and "What level of technical knowledge does the manager need?"

The key function of a manager is to support employees in every way so that they can produce the best possible work.

The nature of technical work is systematic and logical. The people doing this work are often perceived as having poor people skills. The success of technical managers depends on their leadership ability to get performance at the needed level, and their competency and skill to meet the demands of the organization.



Technical employees and management employees have differing perspectives and different requirements for success in their work.

The list below not only outlines these two perspectives, but also describes how the requirement of each role differs.

Technical employees	Management
Work with data and things	Work with people
Low level of interaction required	High level of interaction required
Discretionary time	Discretionary time is nonexistent
Success is primarily based on the implementation of projects	Success is primarily based on compatibility with superior and success of employees supervised
Functional focus	Organizational focus
Make decisions based on objective and complete information	Make decisions based on judgment and partial information
Interaction with employees outside area of expertise is not a priority	Interaction with employees in all areas is a necessity
Responsible for self	Responsible for work of others and self
Expert and specialist	Generalist
Delegation is not important	Delegation is fundamental to success
Acceptable to be a maverick	Public conformity is expected

Six unique challenges

Managers of scientists, technicians, engineers, and analysts are faced with a unique set of challenges. For starters, they often manage employees who have more knowledge and information about the specifics of their product or function. This leads to complications if one person is not performing his or her job well.

Management is about people, and managers of technical employees have the added challenge of managing technology and information in addition to people.

Six unique challenges and ways to handle them are listed below.

Challenge one: Specialization and isolation

Technical professionals are all specialized in their areas of expertise.

To address this challenge:

- ◇ Share the company's long-range strategy.
- ◇ Attain consensus about how your team's work and projects support the company's mission and goals.
- ◇ Use cross-functional teams for varied perspectives and a view of how specialty areas intertwine and influence the success of each project.

Challenge two: Management is fluff

Technical professionals regard management as an unnecessary fluff job that doesn't require any talent or skill.

To address this challenge:

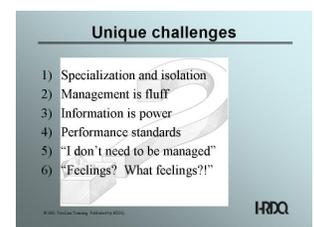
- ◇ Get employees the resources they need.
- ◇ Remove obstacles to their success.
- ◇ Arrange frequent learning opportunities.
- ◇ Give challenging assignments.
- ◇ Show appreciation for outstanding performance.

A common mistake of technical managers is to want to know everything their employees know. This is not realistic and detracts from where their focus needs to be—on managing.

Additionally, managers try to do two jobs, which is a setup for failure on both accounts.

The bottom line is that it is harder to manage technical employees, but if you are competent at your job and confident about your abilities, then you will earn their respect.

Managers and technical employees should ideally have an attitude of mutual respect. They need each other to be successful in their jobs. The key task of technical managers is to make sure that qualified people do tasks in a timely manner.



Take the time to learn about what your employees do. Ask them to teach you some of their jobs. Spend a day in their shoes.

It is absolutely acceptable to let your employees know they are smarter than you; your job is to manage, and if they don't do a good job, you suffer.

Six unique challenges

Challenge three: Information is power

Managing technical professionals who know more about their jobs than the manager does is a challenge.

To address this challenge:

- ◇ Maintain a sufficient level of knowledge to know what employees face, establish direction, and make sure resources are provided to enable problems to be solved. These are more conceptual skills.
- ◇ Remember that the manager's role is to blend projects and tasks into a successful completion that meets customers' needs.
- ◇ Ask for information on a regular basis. Techies love to talk about their work, struggles, and accomplishments.
- ◇ Stay current with trade journals.
- ◇ Make sure you understand the problems employees face and the work they perform—in a nondetailed way. The manager relies heavily on technical employees for information and technical detail to be able to represent the group effectively to the rest of the company.

Challenge four: Performance standards

Technical professionals seek and prefer exact standards of performance.

To address this challenge:

- ◇ Develop agreement about mutual expectations and time frames.
- ◇ Remain focused on the goals.
- ◇ Use a peer review/input system. This must be handled appropriately.

Six unique challenges

Challenge five: “I don’t need to be managed”

Techies prefer to maintain autonomy and be self-directed in their projects.

To address this challenge:

- ◇ Remove bureaucratic steps that hinder the creativity of project teams or individuals.
- ◇ Maintain frequent communication to keep tabs on progress.
- ◇ Don’t micromanage; it will lead to resistance and resentment.
- ◇ Give some budget authority to employees.

Challenge six: Feelings? What feelings?!

Those with a technical focus tend to value objectivity and logic more than other people’s feelings.

To address this challenge:

- ◇ Empower the employees.
- ◇ Provide coaching for employees’ development.
- ◇ Guide individual employees to resolve interpersonal conflicts and negotiate solutions.
- ◇ Communicate with empathy.

To share budget authority, determine what is appropriate for the work your department does. For example, you may set a guideline that anyone can make a purchase for something up to \$200.

A survey of 4,000 engineers asked what factors contributed to productivity and satisfaction in the workplace. The results showed that human relations, above any other factor, including getting more and better information from managers about decisions, having more say in decisions, and having a greater chance for recognition and promotion had an impact on these employees' productivity.

From, Fred Guterl, "Spectrum/Harris Poll—The Job," IEEE Spectrum, vol. 21, no. 6 (June 1984), p. 38.



Components of success

David Campbell, Ph.D., founded the Center for Creative Leadership. He identified these leadership practices critical to success:

- ◇ Promote communication
- ◇ Focus energy
- ◇ Monitor and provide resources
- ◇ Build organizational support for teams
- ◇ Build and use team skills
- ◇ Build commitment
- ◇ Clarify the mission
- ◇ Coordinate activities (for smooth operations)
- ◇ Manage conflict openly and constructively
- ◇ Support team members (with trust and respect)
- ◇ Promote team learning
- ◇ Support innovation
- ◇ Encourage feedback
- ◇ Reward performance

Technical leaders

The requirements for technical leaders are more specific and add on to the list above. Technical leaders need to have:

- ◇ Self-knowledge/self-awareness
- ◇ The ability to generate and sustain trust
- ◇ The ability to be agile and adapt to changing situations
- ◇ Openness to diverse points of view
- ◇ Conflict resolution skills
- ◇ Openness to valid feedback
- ◇ The ability to create a compelling vision that translates to reality
- ◇ A history of personal and professional credibility

**From Warren Bennis and Robert Townsend in "Reinventing Leadership," William Morrow & Co. 1995, New York, New York.*

Managing former peers

Technical managers start as technical employees themselves (programmers, analysts, engineers, etc.). This means that their training, experience and focus are on implementing technical solutions. However, the management role is different.

Technical employees are usually highly skilled, intense, and prefer self-directed work. They will probably resist attempts at micromanagement and direction. This can present a dilemma. When technical employees are promoted to management, they tend to want to maintain their focus on the details of the projects, which will feel like micromanagement to employees.

This is an awkward situation, but doesn't need to be difficult if handled properly. Try these tips to make the transition a smooth one.

- ◇ Openly acknowledge that the situation has changed.
- ◇ Have a meeting to discuss the changes.
- ◇ Focus on the positive.
- ◇ Do not act superior or condescending.
- ◇ Admit your mistakes.
- ◇ Have ongoing and open discussions with employees to further build trust in your new role.
- ◇ Accept that your technical prowess will fade away and strike a balance of the necessary level of current technological knowledge for the management role.

It can be difficult for managers to let go of their ways and the technology they know from their time in the hands-on realm because it might feel like they are losing control or losing their edge. It is important that this does not impede necessary change or progress of the department.

Don't micromanage—hire good people, keep things on track, provide general direction, share ideas, handle political matters, track progress, and represent your group well. Leave the technical work to the technical employees.

Managing former peers

- Acknowledge the change.
- Meet to discuss changes.
- Focus on the positive.
- Do not be condescending.
- Admit your mistakes.
- Maintain ongoing discussions.
- Accept that your technical prowess will fade away.



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