

THE **AMA**

CRITICAL THINKING TOOLKIT

American Management Association



THE AMA CRITICAL THINKING TOOLKIT



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About AMA

American Management Association (www.amanet.org) is a world leader in talent development, advancing the skills of individuals to drive business success. Our mission is to support the goals of individuals and organizations through a complete range of products and services, including classroom and virtual seminars, webcasts, webinars, podcasts, conferences, corporate and government solutions, business books, and research. AMA's approach to improving performance combines experiential learning—learning through doing—with opportunities for ongoing professional growth at every step of one's career journey.

CONTENTS

What Is Critical Thinking?

6 Reasons Critical Thinking Is Crucial to Your Career

Critical Thinking Self-Assessment

Scoring Your Self-Assessment

Critical Thinking Worksheet to Solve an Existing Problem

5 Tips for Uncovering the Best Solution

Making Decisions Under Pressure

Resources to Develop Your Critical Thinking

CHAPTER 1

What Is Critical Thinking?

Critical thinking is a process to achieve reasoned conclusions based on evidence.

Critical thinking requires evaluating ideas, claims, or assumptions to determine whether they are true. Developing your critical thinking skills will help you make decisions, solve problems, and execute the solutions based on your analysis.

Critical thinking involves an awareness of:

- ***Assumptions.*** A key factor in critical thinking is uncovering assumptions and examining whether it is practical to base decisions on them.
- ***Emotions.*** Emotional intelligence and awareness of when emotions are clouding your judgment are crucial to critical thinking.
- ***Strategy.*** You need to be able to evaluate how your solution fits in with the overall strategy of your company and whether it supports the direction your company is going.
- ***Trends.*** To evaluate your solution, you need to monitor global trends in your industry, and in general. You need to be savvy to disruptive changes that can affect your overall business and plan for them.

CHAPTER 2

6 Reasons Critical Thinking Is Crucial to Your Career

1. ***Your manager values it.*** According to the 2012 Critical Skills Survey by the American Management Association (AMA), more than 70 percent of executives surveyed felt that critical thinking skills were important to their business.
2. ***Having these skills makes you indispensable to your company.*** Not only will your manager appreciate your problem-solving abilities, your organization will too. According to AMA's Conquering Big Data research, 58 percent of participants report that analytics are already vital to their organization, and that rises to 82 percent when asked about five years from now. In the 2012 Critical Skills Survey by AMA, more than half of executives say there is significant room for improvement in critical thinking among their employees. In fact most respondents admitted that their employees are, at best, average critical thinkers. Being able to demonstrate these skills will make you a valued asset to your company.
3. ***It'll boost your productivity.*** According to initial research, companies who use data-directed decision-making see a productivity boost of up to 6 percent.¹

4. ***You'll get better scores on your performance evaluation.*** In the 2012 Critical Skills Survey, 67 percent of respondents reported that they measure critical thinking during performance reviews. The skills to understand and evaluate data used to reside in scientific or IT roles, but as the sources of data expand, mid-level managers also need such skills because they are closest to the original data sources. Regardless of your role, you are expected to think critically, and that will be even more true as big data becomes more available.
5. ***The age of big data has arrived, and you don't want to get buried.*** Experts believe there will be a 4300 percent increase in the annual data generated by 2020.² If you feel overwhelmed now, consider how you will feel if you don't start to learn the skills you'll need to read that data, interpret it, and make informed decisions. These skills are crucial and are in very short supply.
6. ***You'll have highly sought-after, scarce skills.*** It has been estimated that by 2018, the United States alone could face a shortage of 140,000 to 190,000 people with deep analytical training.³ Mastering these skills sets you apart from the rest and makes you a valuable resource that companies will fight over.

Begin your critical thinking development by evaluating where you are now.

Are you ready to learn more?

1. http://www.csc.com/insights/flxwd/78931-big_data_universe_beginning_to_explode
2. http://www.cisco.com/en/US/solutions/ns340/ns517/ns224/big_data_wp.pdf
3. <http://iveybusinessjournal.com/topics/strategy/why-big-data-is-the-new-competitive-advantage#.m6Co1NWs-i>

CHAPTER 3

Critical Thinking Self-Assessment

Evaluate your critical thinking skills with this quick self-assessment. Choose the answer that best describes your actions when solving a problem.

1. When considering a problem, I take the time to question my assumptions and make sure they are solid before moving forward.
 Agree Disagree

2. I question even seemingly obvious assumptions.
 Agree Disagree

3. I ask others for suggestions and opinions.
 Agree Disagree

4. I ask a diverse group of people for their perspectives including people from diverse demographics, departments, and roles.
 Agree Disagree

5. I evaluate solutions objectively with the strategy and customer needs in mind.
 Agree Disagree

6. In general, I do research whenever possible to gather evidence to help me make decisions.

Agree Disagree

7. I do first-hand research on what the customer or end-user would want using focal groups, social media, and interviews.

Agree Disagree

8. I consider ideas and suggestions that other people put forward, even if they suggest something my gut says won't work.

Agree Disagree

9. When considering someone else's idea, I take into account their personal point of view and think through whether their opinion is affected by their situation, experience, or background.

Agree Disagree

10. I search for patterns and possible solutions based on the available data.

Agree Disagree

11. I consider whether my own emotions are affecting my ability to make an objective evaluation of the problem.

Agree Disagree

12. I consider the emotions of others and whether it is clouding the real issue or problem.

Agree Disagree

13. I ask questions to clarify the problem and desired outcome.

Agree Disagree

14. I look at how my industry is handling similar problems to get insight into whether my solution is current and competitive.
- Agree Disagree
15. I look to other industries to see if they provide any insight into problems I am facing.
- Agree Disagree
16. look carefully at the evidence that supports an argument to make sure it isn't biased.
- Agree Disagree
17. I don't overgeneralize past what the evidence suggests.
- Agree Disagree
18. I would choose a solution that I was uncomfortable with if the evidence strongly supported it.
- Agree Disagree
19. Once I decide what the best solution is, I make sure when we execute that we monitor the most critical factors.
- Agree Disagree
20. When the situation changes, I revisit my initial assumptions to make sure the solution is still valid and execute any changes necessary.
- Agree Disagree

Total Agrees: _____

CHAPTER 4

Scoring Your Self-Assessment

Count your “agree” responses to the assessment to get your score.

- | | |
|--------------|---|
| 0-6 points | While this is a low score, don't despair: critical thinking can be learned. |
| 7-13 points | Your score is mid-range and shows that you have some room for improvement. |
| 14-20 points | Congratulations, you have a better-than-average score. |

Regardless of your score, remember that critical thinking is not a skill you are born with. You can develop your critical thinking skills at any time. Begin by going over your responses to this assessment and thinking about the questions you marked “disagree.” Your results will suggest areas of improvement. Will [developing your emotional intelligence](#) boost your critical thinking? Do you need help [thinking more strategically](#)? Do you need to [improve your analytical thinking](#) skills? Do you need advice on [how to make decisions based on data](#)? Determine what area of critical thinking you need the most help with and check out the resources at the end of this ebook to help you sharpen those skills.

CHAPTER 5

Critical Thinking Worksheet to Solve an Existing Problem

Define the problem as clearly as possible.

Who can give insight into what the problem is? Who was involved when the problem first arose? Who is involved now? List them here:

Interview people close to the problem including the staff and, if applicable, the customer. Collect information on what is causing the problem and list possible causes here.

Did you uncover any conditions that make the problem better or worse? Did you uncover any major change that occurred around the same time the problem first arose? List possible factors here.

Research the problem. Are other companies having similar problems? How have they handled it?

What can you learn from looking at other industries? Are there other industries having similar problems? Make a list of ideas here.

Make a list of assumptions you've made in defining and trying to solve this problem.

Evaluate data that supports/debunks these assumptions. Are your assumptions valid, or do you need to reconsider the root of the problem?

Make a list of desired outcomes.

Brainstorm possible solutions.

Research the resources needed to implement the potential solutions, and make a list of pros/cons for each potential solution.

Run solutions by a diverse group of people including customer service, line managers, a focal group, as well as your team. Summarize their feedback here. Do you need to re-evaluate and revise your list of pros and cons or add to the list of possible solutions based on their feedback?

What is the best solution based on the evidence you've gathered. Outline it here:

Once you've worked through these questions, here are additional steps to make sure your solution is sound:

Run the financials to see if the solution makes business sense.

Create a test product.

Test functionality and evaluate whether it solves the stated problem.

Role out and revise based on feedback.

CHAPTER 6

5 Tips for Uncovering the Best Solution

Leadership Development guru John Mattone suggests these tips for uncovering the best solution:

- ***Devote enough time*** to collecting and analyzing information the next time you are faced with an important decision to make or problem to solve. Decide what you will do based on this information, rather than just relying on your gut feeling.
- ***Don't fixate on a single solution.*** Make a list of several possible solutions, and then evaluate the pros and cons of each one.
- On complex problems, ***collect quantitative data*** and analyze it in terms of causes. It often happens that only one or two things are causing 90 percent of the problems.
- ***Pay special attention to recurring problems.*** This sometimes indicates that the solution you've tried in the past has treated only the symptoms. Dig deeper to uncover the real causes.
- ***Dive right into challenging issues.*** Decide on the minimum amount of information you need in order to make a quality decision, and then move forward.

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CHAPTER 7

Making Decisions Under Pressure

The constant deluge of available data can become overwhelming, and this is one of the biggest obstacles to thinking critically. If you find yourself getting on the survival cycle instead of taking the time to gather necessary data and make decisions, here is some advice from Sharon Melnick, author of *Success Under Stress*. Tell yourself that you will find a way to complete the important matters, then picture yourself in a state of satisfaction after the crisis is resolved. Next, get all the items out of your head by making two lists, one of substantive work matters (organized by project) and the other of quick, administrative items. Get started accomplishing the first of your “to-do” items right away, without dwelling on your long list. Put all of your attention on one task at a time and use the “5 Ms” to get things done on time:

1. **Minutes**—How much time do you have right now to devote to your to-do list? If only a few minutes, then knock off as many of the quick items as you can. If you won’t have time to complete an entire item soon, try to finish any remaining pieces of a substantive item first.
2. **Metrics**—What is the bottom line metric that defines your success? If it’s making money, do the single most important activity that will accelerate income. If your bottom line metric is delivering a project or result, consult your project management

outline to determine which items are the next to be delivered or which you must problem solve to move toward completion of that phase of the project.

3. *Mojo*—If appropriate, tackle the item that might not be the most urgent but will take the biggest weight off your shoulders and give you confidence and momentum to do other items.
4. *Misfortune*—Which task, if not done, will cause significant risk or misfortune? Do that one!
5. *Missing Communication*—If you have too many priorities because you've received conflicting requests or you've taken on an excessive workload, then make a plan to solve the problem at its cause (for example, lack of communication between two managers) before you proceed to perform tasks that only perpetuate it.

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Resources to Develop Your Critical Thinking

ANALYSIS

Webcast: [Management Readiness for Big Data: Skills, Talent and Tools.](#)

Book: [The Art of the Long View](#), by Peter Schwartz

Book: [Dangerous Half-Truths and Total Nonsense](#) by Jeffrey Pfeffer and Robert I. Sutton

Seminar: [Critical Thinking](#)

Critical thinking skills give you ways to arrive at better decisions and can help you determine what matters most in any business challenge.

Seminar: [Fundamentals of Forecasting](#)

Do you have the necessary skills to accurately predict revenues and costs?

Seminar: [How to Turn Data into Compelling Visual Presentations](#)

Visually and clearly present data and the message it represents.

Seminar: [Improve Your Analytical Skills: Making Information Work for You](#)

Assess and synthesize information so it's meaningful to you and your business.

Seminar: [Solving Complex Business Challenges with Critical Thinking Techniques](#)

Apply critical thinking to complex business situations

Seminar: [Tools and Techniques for Mastering Data](#)

Make smarter business decisions using these powerful data analysis methods.

EMOTIONAL INTELLIGENCE

Book: [Emotional Intelligence](#) by Daniel Goleman

Seminar: [Leading with Emotional Intelligence](#)

Seminar: [Developing Your Emotional Intelligence](#)

STRATEGY

Seminar: [Facilitating an Effective Strategic Planning Session](#)

Efficiently prepare and run strategic planning sessions that produce real results.

Seminar: [Data As a Strategic Asset: A Customer-Focused Approach](#)

Developed with IBM® exclusively for AMA

Seminar: [Fundamentals of Strategic Planning](#)

Improve strategic planning to understand what senior management is thinking and why.

Seminar: [Strategic Planning](#)

Establish a time line and road map for preparing your strategic plan

Seminar: [Strategic Thinking](#)

Develop a strategic mindset to increase the success of your strategic plans.

EXECUTION

Webcast: [**Making Smarter Decisions Without Drowning in Information**](#)

Webinar: [**Mastering Excel® Macros**](#)

Discover How to Automate Repetitive Tasks to Save Time with Your Spreadsheets

Webinar: [**Mastering Excel® Formulas and Functions**](#)

How to quickly use a host of built-in functions to get accurate results in a snap

Webinar: [**How to Increase Your Productivity Using Microsoft® Outlook®**](#)

Tools and tactics helping you get more done in less time

Webinar: [**Mastering Excel® PivotTables®: How to Crunch Numbers like an Expert**](#)

How to use this built-in Excel® tool to simplify your data analysis chores

Book: [**Intelligent Leadership**](#) by John Mattone.

Seminar: [**Managing Chaos: Tools to Set Priorities and Make Decisions Under Pressure**](#)

Master the challenges of an expanding workload and perpetual change!

Seminar: [**Analytical Thinking and Problem Solving**](#)

Powerful skills to more successfully reason through business problems

Seminar: [**Demystifying Decision Making: Getting It Right**](#)

Empower your staff to make focused, better-informed decisions with clarity and confidence

Seminar: [**Strategic Agility and Resilience: Embracing Change to Drive Growth**](#)

Lead with greater foresight and adopt entrepreneurial thinking

Seminar: Strategy Execution: Getting It Done

Accomplish what most can't—the successful implementation of strategic goals

Training

AMA is an education provider offering training in critical business skills. You can't learn people skills from an app. You need to experience it, practice it, and get personal attention to the details that make a difference. AMA Seminars give you:

- Extensive practice in a supportive environment getting feedback from expert instructors.
- Tools and techniques designed to improve performance.
- Certified educational units that qualify for PDU's, CPE's, and more.
- Opportunity to network with peers across industries

We don't lecture, We accelerate performance. Discover AMA.