### **The importance of critical thinking**

# - Let's look at the importance of critical thinking. So many times when people ask us can you solve this problem, we rush off and start solving it without stopping to think before we do. We're facing new demands that require extensive amounts of information before we can make a decision. As part of your problem solving process, there are going to be multiple stakeholders involved. This increases the complexity of trying to get to an answer. When you do ultimately come up with a recommendation, those big decisions will involve numerous trade-offs. Not everyone is going to be happy with what you recommend. There are going to be long lag times in acquiring the required data to make your decision, and when you finally do make the call, there's going to be high scrutiny over whether you are right or wrong, and a bad call can have both business as well as personal and professional implications. Add to this unforeseen bottlenecks in getting to that answer, multiply it by the number of problems you're trying to solve every single day, and then divide by the limited amount of time you have to get to an answer. The importance of stopping and thinking critically before you rush off and undertake all these very comprehensive efforts is very high. That critical thinking process is what's going to differentiate you and the solutions you develop versus rushing off without any thought at all.

### **Distinguish causes vs. consequences**

# - As you begin your critical thinking efforts I'd like you to think about causes and consequences. One of the biggest challenges we're going to face with any problem solving is that desire to rush off and get to an answer quickly, because we feel like we're being responsive to our stakeholders when we do. But think about it, have you ever solved a symptom only to find out there are other symptoms that arise after you solve it? Have you ever put in place a recommendation only to find out you created new problems down the road? When you're going through this critical thinking process, first consider causes. Look at the symptom that is problematic, then figure out the real reason it's happening and come at that possible symptom from multiple perspectives. Once you generate a recommendation, stop and think critically. What new problems can you create if you implement this recommendation? what are the new symptoms that will be caused? Think that through before you implement your recommendation. Let me offer an example. I know of a client situation where the organization was going to roll out a brand new website that would be facing their customers. The problem was they continue to miss deadlines for rolling the website out and going live. Now let's look at causes and consequences. What was the cause of the website not rolling out? Well, the code wasn't ready. Yeah, but that's a symptom, that's a symptom of a problem. Why wasn't the code ready? Well, the specifications weren't done. Okay, well that's also a symptom. Why weren't the specs done? Well because they didn't agree on the features and functionality of the new website. But let's not stop there. Why was that symptom happening? Well, they weren't given clarity by leadership around one aspect that was a major strategic decision in terms of how they would roll the website out. That was the cause of all these issues and why the rollout wasn't happening. Now let's think through once that strategic decision is made what are the consequences of it? So leadership finally decided to make the website a closed network. Therefore, new customers would have to call in to register instead of registering on the website. That's then going to flood the call center with incremental calls. The consequence of that is the staff in the call center is going to be overworked. And then a consequence of that is current customers are going to experience service issues, they won't get their calls answered as quickly. And then a consequence of that is we might lose current customers. When you go out to solve a problem think backwards about the causes, think forward about the consequences. Look at the causes, spend some time thinking about what's really causing this issue. Continue to work backward until it's clear you're solving a problem and not a symptom. Then once you've generated a recommendation, think through the consequences. What are the new problems that could emerge if you implement your recommendation? Think about a problem that you made a recommendation on where it didn't go so well. Which of these two did you miss? Did you miss the real root cause? Did you miss possible consequences of your recommendation? By spending this extra time thinking about these aspects and putting in the critical thought, there's a much higher likelihood that whatever recommendation you come up with is going to solve the true problem, and you're going to account for some of the possible consequences down the road.

### **Break big problems into small ones**

# - One of the first steps in any good critical thinking process is taking a very big problem and breaking it down into smaller ones that you can actually solve. The time you invest thinking through what the components of the problem are is going to pay dividends on the backend when you look at the possible solutions, because you'll have a better sense for what recommendations and solutions to pursue and how those solutions help you solve the bigger problem. Let me illustrate. So, let's imagine we have a problem where our profits are down. That's a huge issue to solve. We can't solve that in and of itself. We have to look at smaller components of it. So, if we have a profit problem, we have two components. Either our revenues are down or our costs are up, or some combination of the two. But those are still very big problems to try to solve. So, let's break down revenues and what could be causing our revenue shortfall. Well, that's either volumes are down or prices are down. And on volumes, that's still a big issue. We may have a smaller issue of current customers are buying less or we're selling less to prospective customers. Now, on the cost side, the reason that costs could be up are either prices are up or we're buying more stuff. If prices are up in terms of the stuff we're buying, well, that could be a function of base prices are up or we're getting less of a discount. When I take these big problems and I spend the time to think about breaking them into smaller and smaller ones, those smaller problems are much easier to solve. What I'd encourage you to do is take a big problem you're currently facing. Go find a whiteboard somewhere and ask yourself, "What's that big problem composed of? What are the smaller issues that are driving the big problem?" Once you have those smaller issues, break them down again, and continue breaking those big problems down into smaller and smaller ones until you say, "Oh, I know how I might solve that component of it." When you can start seeing the solutions emerge, you're moving from that problem identification stage to a problem solving stage. And the time you invest in dimensionalizing this problem solving space is going to help you solve problems more quickly and more effectively.

### **Define the problem statement**

### - One of my favorite critical thinking and problem solving tools is a good problem statement. You should never just take a problem and rush off in a general direction, thinking you're going to come up with a solution that will satisfy the needs of your requester. If you don't know the destination, you're going to get lost. It'll take you a long time to get there. The corollary here is with your problem solving and critical thinking. You need to know what that destination is. What is success for your problem solving? Your problem statement defines that endpoint. Without a problem statement, you're going to spend a lot of wasted hours, wasted work, and have excessive revisions, because your recommendation won't make sense, because nobody knows what you're trying to solve for. When you put together a good problem statement, it becomes your charter for your critical thinking efforts. It's going to spell out your goals. It will lay out boundaries on the problem solving space. It will define success criteria. Your problem statement should spell out the constraints you're going to face. It should articulate your assumptions, who the stakeholders are, and any timelines that you're going to face. I have one client organization where they didn't spend the time laying out the problem statement. They ended up with major issues for their charter for a huge technology project. Because the team was trying to solve all different problems, they didn't have clarity on what the ultimate goal was, what the metrics were, who the stakeholders needed to be, and what ultimately the boundaries were for the space they were trying to solve in. This led the team to write a lot of code, have multiple revisions, multiple attempted roll-outs. They couldn't solve the problem because they hadn't defined what the problem was in the first place. Take a look at a problem you're trying to solve. Is it clear what the problem statement is? Do you know what the goals are, what the boundaries, constraints, and assumptions are? Do you know who the stakeholders are? The time you spend with this type of critical thought is going to help you be more effective in solving the problems that you face.

### **Understand the real question**

# - So many times when we're asked to look into an issue, we just rush off and start solving it without really thinking through what's causing the person to ask me this question in the first place. Probe to understand why you're being asked to look at something. Once you have a good understanding of why, you're more toward a cause, but don't stop there. Once you have that understanding, ask why again. Really get that deep understanding of what's causing concern on your stakeholder's part. By understanding the real question they have, you can avoid solving symptoms and instead, come up with a recommendation that is going to resonate for them and be something that they're excited about. The real question opens up new answers, new ideas, and new opportunities. Let me offer an example. An executive that I worked with, named Sue, was asked by her senior stakeholder, Kim, to look at employee turnover data. Now Sue knew this data inside and out. It was very easy for her to go into the information, pull out the data, and generate a report about turnover. And she could have done that, but she didn't. She stopped and asked Kim why she wanted to understand this issue, and it was really an issue of evaluating unit performance. Well, once Sue understood this, other metrics made more sense than just the base turnover data. She stopped though and asked Kim again why was she looking at unit performance, in particular. Turns out what Kim really wanted to understand was did they have issues with leadership or with processes that were causing a lot of churn and turnover of their associates? It was now clear to Sue that she had to look at metrics and processes. By doing so, she was able to generate ideas on how to fix some of the issues with leadership, as well as some of the processes that should change. She generated a better solution. What I'd encourage you to do is take a look at a problem you've been asked to solve. Go back to that stakeholder and understand what's really driving that request. Why do they care about this? When you get a better understanding of that, you'll find the solutions you come up with are going to be bigger, better, and more exciting.

### **Ask focusing questions**

- As you define your problem, you should ask and answer some focusing questions to help you bound the solution space. You should ask things like, what's the real question? Specify the objectives and timing that that stakeholder has asked of you. Ask, who are the stakeholders or influencers who are involved in the decision? Who can support it and who can derail it? You should articulate how you're going to measure success. Lay out what the quantitative and qualitative measures are going to be. So you know on the backend if you've really solved the problem. Ask the specific scope, what is or is not included in the space you're looking at? And lastly, understand the constraints that you face. By answering all of these questions and spending this time in critical thought, you're going to have a much more clearly bounded problem space. Let me offer an example of how I use these focusing questions to help bound a problem space. In my past, I worked for a credit card company and I was responsible for some of our collections. The way we collected our money back from consumers who owed us was we outsourced these activities to external agencies. The problem we were asked to solve was to improve the performance of those agencies. So first, we looked at the objectives. We wanted to reduce costs, increase our collections, and make those changes by the end of the year. So we bounded the space in terms of what success looked like. We then had to think through the influencers and stakeholders. We looked at IT and finance because anything we did was going to require technology changes and any changes in the commissions that we paid was going to impact finance. We then looked at the cost per dollar collected, the commission rate, and we also looked at some qualitative metrics of success. In terms of bounding the solution space, we looked at specific lines of business. We had 10 business units. For this initial solution, we were going to only focus on two of them. And we had to understand the constraints to that space. There were legal and regulatory issues that we had to consider. We had time constraints, remember, end of year, and we also had some budget constraints. We would only be able to spend this much money on IT and this much on commissions. By asking and answering these focusing questions, we had a better sense of what that box around our problem looked like. So when we found a solution, there was a higher likelihood that we would solve within that box which would then meet our stakeholders' needs. Take a look a problem you're trying to solve. Ask and answer these focusing questions. The time you spend in the critical thinking required to come up with these answers will help ensure that the solution you come up with is going to meet your stakeholders' needs.

### **Examine past efforts**

- Another element of the critical thinking that goes into defining your problem is considering past efforts. We shouldn't reinvent the wheel. Ask yourself, has this problem been considered in the past? What did we learn? What's different now versus the last time we looked at it? Were there challenges or issues last time this was addressed that we need to think about as we try to solve it this time around? What are the ingoing assumptions that are limiting our thinking? Who was involved in the problem solving last time? By learning from experience, it's going to prevent you from wasted effort. You can identify and avoid prior pitfalls and you can also involve some of the veterans to help push your thinking. Let me show you how this showed up in a problem that I was solving. When we were trying to solve that collections issue and improve our agency performance, we had looked at commissions before. What's different this time around was we didn't have the measurement data the last time, and last time we were working with a different set of agencies on a very different technology platform. This time around new agencies, new data, new platform. Some of the assumptions we had were that we couldn't measure everything we wanted. In terms of who was involved last time, well, it was the Recoveries team from the last time, and the people who were involved in that effort, most of them were still around, and could help us think through the problem this time. By looking at prior efforts, we were able to understand what our limitations were the last time and it helped us gain institutional knowledge that we could apply this time around. As you're going through your critical thinking efforts to define your problem, ask these questions about the past efforts and see how they can inform your problem solving this time around.

### **Use new lenses to think critically**

- Another set of critical thinking tools for defining your problem is looking at the problem through new lenses. Can you change the point of view? Can you change context? And can you change reality? Let's look at what those mean. Changing point of view. How is the problem defined from the perspective of the CEO, of the frontline staff, of customers, of adjacent groups? They're all going to look at the problem in different ways, and they'll define it differently depending upon their point of view. The problem will look very different from 10,000 feet versus 50 feet. In terms of changing context, can you reimagine the problem in new ways? We tend to come at the problem from our own functional perspective. If I work in finance, well, it's going to be a finance problem. If somebody works in IT, they'll look at the same thing and say, "No, it's an IT problem." So, can you change the context in terms of how you're defining the problem? And can you change reality? Ask yourself, "What if? What if I removed some of these constraints? What if I had some of these resources? What if I was able to do this instead of that?" By changing reality, you may find a different way to define the problem that enables you to pursue different opportunities. By looking at the problem in new ways, you're going to get a clear sense of direction around what the real issue is, such that you can generate some innovative and insightful solutions. Let me tie back to a collections example, where we were solving the problem and we saw it as an agency management issue. It was about relationship management with our collections agencies, and that's how we were going to improve their performance. Other people saw it as a strategy problem. Should we be outsourcing or insourcing those activities? Other people saw the performance issue as a commission or pricing problem. Were the commissions and incentives we were giving these agencies correct? Or should we change them to improve performance? Other people saw it as a training issue in terms of the frontline staff. Were we giving them the tools and techniques and training that was required for them to perform effectively? So, looking at the problem from very different points of view led us to other possible solutions. So, I want you to take a problem you're looking at and ask, "Can I change my point of view?" And if you struggle with this, if you're so tied into your functional area, go find somebody from another group. Explain the problem to them, ask them how they would define the problem. Use their perspective to generate that different point of view. Spending this critical thought around looking at the problem from different angles and understanding what aspects of it can change may help you uncover that one really big solution that you never would have seen with your very limited scope. So, spend the time in this critical thought, stepping back from the problem, and really asking, "Is there a different way to define it?"

### **How to find root causes**

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- The final thing you should think about as you're trying to define your problem is causality. I've mentioned thinking about causes and consequences, that applies to thinking through how you're going to define the problem in the first place. You should understand, are some elements of the problem you're trying to solve derived from other problems or other related elements? How does this problem tie to other issues in your organization? What's the real root cause of the problem? Remember, we don't want to solve symptoms, this is about solving the right problem the first time around. Does solving this really means solving that much deeper or proceeding problem? The more you can get to the root, the more effective you're going to be in preventing future problems in the organization. Once you've solved it and you come up with that recommendation, think forward about these consequences. Are there organizational, customer, competitor repercussions to anticipate? If you make this change, how will everybody else behave? Are you really clear about chronology and what causes what causes what? Laying out that path that says, if I do this, then this might happen, then this might happen is going to help you predict some of the outcomes that you could face. And if those might be bad outcomes, it can impact the type of recommendation you make in the first place to be able to avoid those issues down the road. Understanding those causes, and then the effects of your recommendation is going to help you solve the real problem and avoid unintended consequences. Tying to my example when we were changing agency commissions as a collections organization, we understood that the real issue was incentives weren't aligned. We had two teams working on this issue. One team was my team and we were trying to drive overall collections performance. The other team that was involved was the agency management team. What that team was trying to drive was a very different set of metrics in terms of reducing the amount of money that we were spending with those particular agencies. Those goals were in conflict. So a way that we got past that was we created one single team with one clear objective that would help both of our organizations succeed. Now, our recommendation was to change the commissions, we were going to pay these agencies. By paying them more money, we were going to get them to focus more on our work versus our competitor's work that they were also being outsourced. Now, this would be great in the short term. Those agencies would change their performance, dedicate more of their efforts to our work, and a side benefit was they would ignore our competitor's. But let's think about the repercussions. And we said, if we make that change, well, I'm pretty sure our competitors are going to make similar changes as soon as they find out what we've done. And then it really became a race to the bottom on pricing. So if we raise the commissions, our competitors would raise the commissions, and we'd have to raise them and they'd raise them. So we needed to make sure whatever solution we came up with we'd be able to avoid those types of consequences. This critical thinking time helped us come up with a better recommendation that met the needs of all the stakeholders involved and helped us avoid some downstream negative consequences. For a problem you're solving, spend that time thinking about causality. What's the real cause of the issue? What are the consequences you might face? And then document those thoughts in your problem statement so you keep them top of mind as you're coming up with your recommendations.

### **Use the five whys of critical thinking**

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- One of the most effective critical thinking tools I've ever come across is the five whys. When I was a young analyst as a consultant, I was at a client engagement, and I was responsible for doing a lot of analysis. One morning I did a bunch of analysis around some things that my client was purchasing. And when I went to lunch with my project manager, he said, "What have you been doing today?" And I said, "Well, I was doing the analysis on this one category of spend." And he said, "Okay, what'd you learn?" I said, "Well, I think this is happening." And he said, "Okay, well why?" "What do you mean, why?" "Well, why is that happening? Why do you think that's happening?" I said, "I don't know, maybe it's this." And he said, "Okay, well why?" "What do you mean why?" "Well, why would that be happening?" And I stopped and I thought, and I said, "Well, it might be this." And he said, "Well, why?" And I said, "Oh my gosh, what's with the whys?" And he said, "Mike, our job is to come to insights for our client. We can't be satisfied with that first answer. We need to ask why and really understand cause. And by the time you ask the fourth or the fifth why, that's where the real insight is. That's why it's the five whys." And I took that away from that day, and any time I was working on analysis from that point forward, I would ask why. Why am I seeing the numbers do this? And why is that happening? And why is that happening? Asking those five whys will lead you to insight. Let me offer an example. Let's say you're working with a senior executive, and that senior executive says, "Hey, our stock price just plummeted." "Okay, well why, why did that happen?" "Well, we missed our earnings." "Okay, well, why did that happen?" "Well, because we were discounting our prices too much." "Okay, well, why were we doing that?" "Well, because we wanted to retain our customers, so we were offering bigger discounts." "Okay, well, why are we trying to retain customers with discounts?" "Well, because we want to grow market share." "Okay, well, why do we want to grow market share?" "Well, because that's what the incentive plan is tied to for all our managers and business unit presidents. The bigger the share, the bigger the bonus they get." "Well, what happens if we change the incentive plan?" If we had just stopped at, "Hey, the stock price fell, and it's because we missed earnings because we were discounting," there's no real insight there. When we keep asking why and peeling it back, we can identify what that true root cause is. Then we can solve it, then we can have an impact on the organization. The fifth why is where that real insight resides. As you look at a problem you're dealing with, when you see that issue, ask yourself why it's happening, and ask why again, and again, and again. And by the time you get to that fourth or fifth why, hopefully a new insight will pop out and you'll be able to start solving the real problem that will have a true impact on the organization.