Rachel Green

A Leader is a Scientist

Over the weekend, I was FaceTiming my younger sister and she was talking to me about her most recent chemistry lab—titrations. The goal of a titration is to neutralize a particular solution. For example, if you are trying to neutralize a base, you would add an acid. If you add too much, though, the base becomes an acid, and you have to start over. The goal is to figure out just which base is appropriate to use and exactly how much of the particular base to add to the solution to create a neutral liquid. You don’t want the reaction to happen to quickly, but you also can’t have it happen to slowly. After all, chemistry lab is only forty-three minutes long. I told her that I knew she would be able to figure it out; she always does, and we hung up. Later that night, I sat down to think about my metaphor for leadership and I thought back to our conversation. My sister had provided me with just what I needed. I originally thought that a leader is a catalyst. That is what I presented in class. However, after further pondering, I decided that a leader is a scientist more than she is like a catalyst. A leader is curious, cooperative, and creative. She remains humble, takes steps to achieve a vision and is willing to fail.

A leader is curious just as a scientist is curious. In one of our first classes, when we took the curiosity assessment, we talked about how questioning builds better leaders. You have to ask questions in order to learn and gain insight necessary to solve complex problems. Amy Hanson touched on curiosity again when she told us that, “A good ‘Why?’ question shows thought.” I learned this to be particularly true during the summer while I was on co-op. I did not always have a lot of time to communicate with the people above me, so I would think carefully before asking a question. I have come to appreciate the culture that I was a part of at Ernst & Young. While I may not have had the opportunity to be involved in difficult projects, I was surrounded by people (often recent college graduates), who always made me feel that my questions were valid. Because I was often pressed for time, I challenged myself to learn more and began to formulate more intelligent questions. There is no such thing as a dumb question, but there is such thing as an intelligent question. There are questions that lead to better answers, and these are the questions we should be trying to ask.

It is important that all questions be asked because, “When you withhold your questions, you deprive yourself and your team members of small moments of learning.” This topic was discussed in the video we watched about the Five Keys to a Successful Google Team. No matter how small the moment of learning is, learning always occurs when we ask questions, and we cannot miss out on opportunities to learn. Scientists explore their own curiosities when they conduct experiments. Leaders explore them when they work towards goals with the help of team members. A good leader is cooperative and understanding when it comes to the needs of her team. In order to make progress, team members must feel comfortable asking all of their questions. To accomplish this, a psychologically safe environment must be established.

Psychological safety was something I had never heard of before our introduction to the term during this class. In class, though, we spent a good amount of time learning about it, and I took a lot away from our discussions. As Amy Edmondson explained in her Ted Talk, “Leaders need to be crystal clear that they do not have all of the answers.” This admission to imperfection is a type of submission. A leader must humble herself in front of the members of her team in order to promote conversation and allow for more open communication. In a safe environment, members of a team feel comfortable sharing all of their ideas and asking all of their questions, even if they may seem silly. Humility combined with curiosity allows you to take risks and taking risks can lead to new discoveries. People have to admit to not knowing anything in a situation and be curious to hear others’ points of view. When this happens, teaming is made possible. Teaming is not a formal definition of a team. Teaming is teamwork on the flyacross people of all kinds to get work done. Teaming is not stable. It’s like a pick-up game in the park, rather than an organized competition in an arena. A good leader has to know how to work with all different types of people and be responsive to change.

I think that teaming and the idea of psychological safety has a lot to do with trust. A leader who is trustworthy can have open conversations with her team. If her team has faith in her, they will feel comfortable sharing criticism and new ideas, as well as asking questions. We talked about trust alongside the Five Dysfunctions of a Team because at the base of the pyramid is “absence of trust.” That being said, functional teams must be built on a foundation of trust. In all of our activities at Camp Joy, we had to have spotters, or people that stood behind or next to the person completing the activity. The spotters were there in case something happened, and someone fell. Without the spotters, and our team’s trust in the spotters, the activities would all have failed. Luckily, throughout the weekend, the spotters did not have to catch anyone, but they were there just in case. It made everyone feel more comfortable in doing the more risky activities–there was always someone to fall back on, like a safety net. A leader is like a spotter, they have to be trustworthy and never let their guard down.

Cameron Kitchin said that, “The scarcest resource is the ability to problem solve.” This is an ability that all leaders and scientists need to possess. Problem solving takes creativity and the humility to ask questions for which we do not have the answers. Once we ask the questions, we have to come up with a plan to find the solutions. A good leader is able to motivate an entire team to work together to discover the answers. Scientists work to prove or disprove hypotheses. Leaders work to achieve visions. It is all about working to develop a course of action to meet a goal. In science, it is following the scientific method, or a set of instructions. At the end of a particular period of time, scientists confirm or deny their hypotheses, and teams either achieve or fail to reach their visions. Good scientists and leaders are not afraid to take drastic measures to go after goals and test hypotheses. They aren’t afraid because they do not fear failure. Great leaders seize the opportunity to fail because they know that with failure comes new opportunities to succeed.

Rather than working out the kinks and then testing an idea, sometimes it is best to test the idea and, afterwards, figure out why it did not work. As Tim Metzner put it, we should “launch and learn.” We have to be willing to take risks and just go for an idea, even if it at first seems outlandish Again, from the Re: Work talk from Google, we learned that a mindful organization is one that talks about mistakes and how you can learn from them. At Google, teams have breakout sessions after they fail. They use the failure as a topic for discussion because they know there is room for improvement. Often the greatest discoveries are born out of accidents. If we are going to succeed, we cannot discount any of our failures. We need to learn from them and come up with ways to change and develop an actionable plan to ensure success in the future.

Leading is about knowing when to persevere, pass, or pivot. Rob Reinerman called these the three p’s of leadership. Do you stick with an idea and persevere, hoping that you will reach the goal? Is it worth it to keep going, or should you just pass on the plan altogether? Should you pivot? To pivot is to alter strategy without losing focus on the vision. It is a change in direction without a change in destination. If a leader wants to maintain her vision, she must be able to change paths and develop a new strategy for success, a new way to test the hypothesis. As long as the vision is reached, it does not matter the steps that bring you there. Like Warren Bennis said, a leader must possess the “capacity to turn a vision into reality.”

How will I turn visions for my life into my own personal reality? When I close my eyes and picture my future, I see myself walking around a rustic office space in a warehouse of sorts. The company has the feel of a startup but runs like a well-established firm. I am the owner. I carry around my laptop, jogging from meeting to meeting, connecting with people. I do my best work when it is relational. I love people. If I want to work with people, I have to be a good leader. I have to be someone to whom people can look for advice and the answers to their questions. I will be the type of leader who will go to any measure to answer a question. If I do not know the answer, I go and find it for myself. I am motivated to learn because I have a fear of the unknown.

Before I can apply the leadership skills I have learned to my future career, I must apply the skills and metaphors from our leadership journeys to the positions in organizations I hold currently. For example, I am the chief operating officer of my sorority. This means that I manage risk at all of our events, I work to establish positive programming initiatives, and I take disciplinary actions when necessary. I am at the head of our Membership Development Committee. My job forces me to interact closely with the active members of the chapter. It can be challenging at times when I have to reprimand or punish a member of my own class or an upperclassman. I have already run into obstacles. The obstacles have taught me the importance of patience and that it is better to be respected than to feared. In the past, we have had intimidating operating officers, but I am pushing the role in a different direction. While working closely with the members of my committee and various advisors, I am hopeful that we can co-create a psychologically safe environment where women feel that they can open up and experience personal growth. I look forward to the countless opportunities I will be presented with to grow as a leader as I continue the year holding this executive role in my sorority.

As I continue on my own leadership journey, I know that my metaphor will evolve and change along the way, but I will never lose sight of the end goal. I will be understanding and creative. I will work to humble myself in front of the teams in which I work. I will not fear failure. I will keep in mind that vision that so many of the speakers talked about, and I will turn my vision into a reality.