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BIFX 545

Assignment Week 8-9

3/21/2022

Please answer the following questions.

**Chapter 1: Introduction**

1. Of the typical problems that you encounter (or have encountered) in your scientific (or other) position, describe the most difficult.

I’ve had a limited number of positions, but one of the worst feelings is when you know someone is looking over your shoulder because they don’t trust you or feel that you may be incompetent. Especially when they make it abundantly clear that this is the case.

1. Describe the best example of scientific leadership you have encountered and explain why this person was effective.

Flexible and down to earth. It gives a real sense that the leader respects both your time and experiences. They aren’t trying to put themselves above you and see their other lab participants as equals. This is a boost for morale and helps create a more friendly and positive atmosphere.

1. Describe the worst example of scientific leadership you have encountered and explain why this person was ineffective.

Demeaning and only mentioning failures rather than successes. It builds up an impression of “no matter how good I do, I’m just going to get yelled at again.” This can lead to just doing the bare minimum rather than trying to go above and beyond because it won’t end the abrasiveness.

**Lab Management: The Human Elements**

1. Which pieces of advice do you think best apply to the position that you are in right now?

The networking and collaborating advice was quite helpful. I’m just a student right now, but I keep being told this stuff is important, despite not having many chances to practice it. This helped give me a clear idea of how to initiate that sort of thing.

1. Which pieces of advice do you most hope that your current supervisors/leadership would adopt? (Or if you are really happy with your supervisors, which pieces of advice in "Lab management, the human elements" are you happy that they already embody?)

The acquiring people skills seemed to have a particularly good bit of advice: treating each person as an equal part and trying to make sure everyone is involved. This is very important and I would hope my future supervisors practice this.

**Chapter 2: Condition of Being Different**

1. In what way do you think that other peoples' perception of you is affected by your cultural characteristics (i.e. ethnicity, gender, age/generation (i.e. "millennials" vs. "boomers")?

I’m young enough to get thrown in with “Zoomers” (Gen-Z), so I’d imagine some people might think I have a short attention span or completely addicted to technology and don’t know how to have a face-to-face conversation, among other things.

1. What could a leader/boss/coworker do to make it clear that they engage with you as a person and not as a product of your culture?

Just try to treat me as an equal. I might be younger and have less experience—I am certainly aware of that. But if I’m working together with everyone in the same lab, I want to feel like I’m part of the team, not the “child” of the group. Condescending remarks are not appreciated.

**Chapter 3: Understanding What Motivates You and Others**

1. Read to page 43 and then complete the exercise there. I am posting the pictures separately as a link to this assignment. Look at each of the pictures and think about the following questions:

A. What is happening? Who are the people?

B. What has led up to this situation? What has happened in the past?

C. What is being thought? What is being wanted? By whom?

D. What will happen? What will be done?

Then, for each picture, write a story that is continuous and imaginative—do not attempt to answer each question. Try to write the stories in a relaxed and informal setting, spending about 5 to 10 minutes on each story. There are no right or wrong “answers.”

Figure 3-2: There are two wealthy businessmen having a meeting in one of their mansions. The guy by the window is the younger one who just presented a new idea to the older guy. And the older guys has read the idea but thinks there are some problems with it. He is trying to convince the younger guy to see his perspective on things because they are business partners and doesn’t want his ambitious idea to cost him his fortune.

Figure 3-3: There are two women working in the same laboratory. The older one is running an experiment with the only jar of those chemicals in the lab. The other lady is younger and needs to use those same chemicals for her experiment too! However, rather than offering to help with the other women’s experiment, she is hanging back and waiting for them to finish. This is because the older women tends to be condescending and doesn’t take her seriously due to age.

Figure 3-4: This man is an architect who is struggling to design the new building for his job. His wife recently died and he keeps thinking about her and getting distracted. Right is particularly bad for him, because he was designing a fancy house similar to the one that his wife always wanted to live in once their kids grew up and moved away. Every time he tries to work, he sees her face and hears her laughter. It is tearing him apart.

Figure 3-5: This is a group of executives that just finished sitting through a presentation about a new product they could market. However, there is a heated debate going on amongst those that are seated. The guy in the back is trying to leave without getting caught up in it. The guy trying to sit down came late and is getting his glasses on to read the proposal. And the older balding guy feels sick and wants to leave but is trapped by his nephew who is too busy arguing to notice.

Figure 3-6: This is a group of real estate agents in their office during lunchbreak. The lady in the corner just wants to eat her sandwich but the guys are super excited about this new set up buildings they are trying to sell in this fancy upscale neighborhood. They know some rich guy they can convince to pay top dollar for the places. Meanwhile the lady is just stuck there forced to listen to their ramblings even though she just wants to eat.

Figure 3-7: This guy is a CEO stuck on a super long airplane trip for an important investor meeting that he really, really didn’t want to go to because he knows he’ll be confronted about some recent conflict within the company. He’s been reviewing his notes for hours and is exhausted, when he finally received the news that the meeting was postponed! He is immediately relieved, hoping things will blow over before the rescheduled meeting occurs.

1. Read the rest of the chapter and consider your answers for number 8. What motivates you? Power? Achievement? Affiliation?

A lot of the themes in my story seemed to be focused around achievement and affiliation, in that order of importance. After reading about the implications of these different motivations, I feel confident that achievement and to some degree affiliation are both involved.

1. How can you determine what motivates others?

Observe and listen to them over time. Take note of what they talk about and how they talk about it. Look for patterns. Achievement focused people are more independent and need to be challenged. Affiliation focused people like to be around others and are often conscious of their connection to others. Power focused people are often concerned with strategy and want to be part of the bigger picture.

**Chapter 4: Understanding Leadership Style of You and Others**

1. How should leadership be affected by the fact that a task performed is either high structure or low structure?

Different leadership styles are best suited for different types of structures. Task focused leadership style is most effective with high structure. Relationship focused leadership style is most effective with low structure. Match style with work type for the best results.

1. Follow the instructions on page 76 to complete and score the "Least Preferred Coworker" questionnaire. You do not need to report your whole questionnaire, just tell me the final score.
2. According to your score on the questionnaire, are you "task focused" or "relationship focused"?

I got a score of 50, which the book says is indicative of a task focused leader.

1. Do you agree with that assessment? Why or why not?

Yes, I agree with that. I enjoy structure, organization, and plans. I might go so far as to say I need these things or I can grow rather distressed. It does not surprise me at all that I am a task focused leader, and if I had been left to guess, this would have been it.

**Chapter 5: Communicating Effectively**

Consider the model of communication described on page 89 and the problems with communication described starting on page 90, then think about the new challenges that we are all faced with as a result of the sudden move to remote work and asynchronous online instruction.

1. Which parts of the communication model (i.e. Thinking, Encoding, Transmitting, etc.) are most affected by the inability to communicate in person or at least "face to face" via audio and video connections?

Transmitting and perceiving are most impacted by not being able to meet in face to face. For example, transmitting can be easily disrupted because without internet, you can hardly communicate at all. Perceiving can be easily disrupted if the person doesn’t read your email or text because they do not check regularly or miss it.

1. What steps can we take during asynchronous, remote discussions to ensure that others hear and understand what we want to communicate the way that we want them to hear and understand it?

Small chunks are a good way to frame things. Longer messages are less likely to be read in their entirety by anyone. And even if they are, the details at the very beginning and end will stick out the most. Be short, succinct, and to the point. Make it clear what the purpose of the message is. Always proof-read messages before sending them, and maybe even read them aloud to make sure they sound alright and come across as intended.

1. How can you detect and combat the "additional problems in communication" on pages 92-96?

There are lots of different problems presented here. But a core component of it seems to be asking for and addressing feedback. With digital communication, self-checking emails for errors is also a big component. For in person meetings, asking for feedback from those you are talking with is an important avenue to take. It is also important to take questions, even if they are a little off topic, since it may allow you to address misunderstandings and get things back on topic. Being conscious of language barriers or gender schemas is useful. But to truly ensure that these are not getting in the way of your message, it is again important to ask for feedback and address it appropriately. If language barriers are too big, it might be appropriate to get an interpreter.

1. Thinking about the descriptions of "lean" versus "rich" media, what are the most difficult kinds of discussions to have in an asynchronous, remote environment?

Topics that have equivocality and or ambiguity are going to be the most difficult for asynchronous, remote environments. For my field, this may be discussions about complicated scientific papers or experiments. If there are words, techniques, procedures that are unclear and or unknown this will greatly hinder discussion. The rationale behind certain things in the experiment could also be interpreted differently from person to person if not explicitly stated by the author of the paper.

1. How would the application of "active listening" techniques have changed the discussion between Howard and Johnathan regarding the company merger described in the section on "Manifest and Latent Content?"

Active listening techniques such as paraphrasing manifest content would ensure that they are on the same page. Reflecting implications would help them better understand the differences between their structure. Reflecting underlying feelings would allow them to pinpoint areas of concern. Inviting further contribution would help show that they are willing to cooperate on a viable solution to their concerns. Though active listening would not have guaranteed the success of this discussion or merger, it would have put them on the right path to better understanding the difference in expectations, presenting them with an opportunity to address it early.

1. On page 121, the author lists many things that a leader should never do when giving feedback, such as "publicly humiliate", "be abusive" etc. What about the opposite behaviors? For each behavior say whether it is a good idea and why or why not.
2. Is it a good idea for leaders to publicly praise their employees?

If the praise is genuine, there should be no problem with it. This shows that leaders are proud of their employees and confident in their abilities.

1. To give unwarranted compliments?

Obviously, it would be counterproductive to compliment someone for something that they did wrong or incorrectly. But it is also important to balance criticisms with compliments. This may require complimenting someone on basic things that may otherwise not be noteworthy enough to warrant a compliment. There is a fine line to walk here though, because you do not want to mislead someone into thinking something is good when it isn’t.

1. To provide only positive feedback?

Potentially as harmful as only providing negative feedback. It may appear as if you are sanctioning wrong or incorrect things by not addressing them. You may also run the risk of implying that something bad or incorrect actually good.

**Chapter 6: Dealing with Conflict**

1. Thinking about unrecognized schemas and distorted perceptions, what stereotypes do you think apply to each of the following:
2. Biologists

Too focused on what they do to worry about others. Not good at following clear instructions. Bad at communicating.

1. Computer scientists

Not good at thinking outside the box. Need very clear instructions on how to proceed and what to do next. Bad at communicating.

1. Statisticians

Good with numbers, but only good with numbers. Don’t really care for or understand the underlying implications or trends of their data.

1. How might those stereotypes breed conflict?

I really have no clue what the “real” stereotypes are for the above groups. But with my fake ones, it is very easy to see how peoples toes could be stepped on here. Perhaps the leader assumes computer scientists need to be hand held through something open ended, and it is perceived as condescending. Or maybe statisticians are told by the leader to give their data to someone else for interpretation. There are many opportunities for conflict based on individual, organizational, and power differences.

1. Thinking back to the lectures on experimental design, when we discussed complex bioinformatics projects that go from experimental design, through data collection and processing, analysis, and interpretation, were we talking about tasks that are linked by sequential interdependence, pooled interdependence, or reciprocal interdependence? Explain your thinking.

It seems like it would vary depending on which part of the process you are looking at. There is typically an overall order that needs to be followed for certain processes and procedures (sequential interdependence). But sometimes, there will be the need to go back and rerun things. In other cases, you cannot do your analysis until you have collected all of your data and are ready to feed it into the machine (pooled interdependence). Additionally, the results you get from specific tests might end up being the input for a new test (reciprocal interdependence). You could very easily have all three of these types of task interdependence *in the same experiment*! I think choosing one specific way in which these tasks are linked is misleading, and undermines the inherent complexity bioinformatics projects.

1. What are the most important things to consider when heading into a confrontation?

Practice active listening skills and remember the purpose is to get to the root of the conflict. Make sure to be yourself and try to find common ground with the other person. Have an agenda of what needs to be addressed. It’s okay to rehearse if needed. Be mindful of power differences.