Problem Solving

Imagine you and a colleague are given the task of developing a solution to a retailer's current situation of being unable to properly market their products to their target market. You, having the personality of being an extravert and risk-taker, decide to step right into the project, making revisions on the fly and tracking their impact on the retailer’s sales afterwards. On the other hand, your colleague first takes a step back to analyze the company's current marketing strategies and compares it to modern trends in consumer spending in the retail industry. After crunching the numbers, your colleague implements a course of action to begin making changes. So, whose plan is better, yours or your colleagues? There is no one solidified answer to this question as the retailer has no preference on the course of action - assuming they all are ethical and uphold the retailer’s core principles- but merely the company just wants their current sales to increase and to keep prevailing in the future. This scenario describes the beauty behind problem-solving: there are so many ways to conduct it! Whether it's through a structured or unstructured process, a tame or wicked problem, there are typically ten basic steps that are followed, with different types of thinking associated with each problem. I have also had an interest in how each individual has their own unique philosophies of approaching problems and developing solutions. For instance, the same day of this lecture I later went to receive Finite tutoring. Ironically, my tutor taught me an alternative way to approaching permutations and combinations than my teacher had, thus bringing to life what we had just discussed in the
lecture. In this paper, I will reference a current event that utilizes the problem solving
techniques that we discussed in class and further discuss why I am interested in this topic.

Jayme Smaldone is the founder of one of the most useful products you probably have
never heard of. After accidentally knocking his coffee mug over and consequently destroying his
computer, Smaldone invented the “Might Mug,” a coffee mug that made it almost impossible
to knock over yet could still easily be picked up to drink. His invention thus serves as a heuristic
method of problem solving as it was the trial and error of his previous mug that made him
realize consumers could benefit from an updated, more securable travel mug. The Mighty Mug
was a quick and sure hit, leading to Smaldone partnering with retailers, such as Target, Bed
Bath & Beyond, and Office Depot. However, as time progressed, Smaldone began to realize
knockoffs of his mug being sold at similar retailers. Times intensified when Bed Bath & Beyond
canceled his $5 million annual partnership and replaced this contract with a knockoff product.
Smaldone now had a new problem on his hands: the threat of new entrants and substitute
products. Contrary to his last method or problem solving, the young inventor turned his efforts
to more of a structured process. He began purchasing the knockoffs to compare and contrast
them versus his Might Mugs. His first finding was that the knockoffs were being sold for much
cheaper than his mugs. After digging even deeper, Smaldone realized that these products were
being made and shipped from China for an unbelievably low rate, allowing the knockoffs to be
retailed for as low as $5.69, while shipping on Might Mugs alone cost $6.30. This competitive
advantage that the knockoffs had built can be contributed to the old Universal Postal Union
international treaty. This agreement originated in 1874 and allowed for lower shipping rates to
all countries classified as developing, but because it was never updated it did not take into
account that China was currently the world’s leader in e-commerce. Smaldone now realized his competition was much more than a knockoff brand, but two-century long law. As a result, Smaldone did what he does best: problem-solve. He showed up to the White House demanding to speak to President Trump (he was promptly rejected), he met with the National Association of Manufacturers and the Chamber of Commerce, he wrote columns in The Wall Street Journal and The Atlantic, and even sent an 18-page letter to the president demanding change. All the noise he was making brought attention to this flawed Treaty and increased his support as other American entrepreneurs realize they were suffering from the same issue. Consequently, the law entered the House and the Senate, leading to the White House later declaring they would leave the Treaty if it was not amended. This upcoming July, the change goes into effect with the U.S. now being able to charge increased rates on foreign-based shippers, evening the playing field for domestic companies. Although Smaldone’s Might Mug might have never reached its full potential, his problem-solving skills help change more than just travel-mug segmentation, but completely revised a Treaty giving foreign corporations an unfair advantage.

After taking a required survey for Compass I, I discovered that my problem-solving skills are much higher than the average freshman in college. This result sparked my interest as I wondered how one measures someone else’s problem-solving skills? After conducting further research into this question through mastering the problem-solving lecture and completing readings such as the Mighty Muggs scenario, I came to the solution that one’s problem solving skills are not merely based on the strength of the resolutions they come up with, but the steps that are taken to reach it. My survey was an indicator that I am able to break down processes to their building blocks, address the problem, and begin thinking of implementations that would
revise the conflict. This skill will be useful as I begin to meet with interviewers and narrow-down my future career path as any occupation is going to have problems associated with it that need solving. Additionally, the topic of each individual having their own unique approach to solving a conflict is a subject area that sparks my attention.

As previously mentioned, the steps taken to solve problems are just as significant as the solution created. For example, Smaldone’s mug did not overcome competitors and restore the prestige it had previously experienced, but his method of problem solving help changed the future of foreign shipments. It is little uproars such as these that have developed America into the powerhouse country it currently is. People who think of the “why’s and how’s” behind a successful product rather than just admiring its success are the current and future business leaders of this country. Hoping to one day hold that title, I always like to look deep into the configuration of an object and ask myself, what could make this successful product even better. In other words, I create a problem where there is none. This allows my problem-solving skills to activate and develop potential upgrades to an already successful product. Innovators, such as Steve Jobs are experts in this field as they know that contentment is a weakness that can lead to competitors out performing their inventions. An article from Graduateland states that no employer is looking for someone who cannot think and access citations by themselves (Ashman 1). Rather, the best innovators are the ones that can continue to create problems where others deem there are none, and then use the ten basic steps of problem solving to accurately amend the issue.

In the lecture, I learned that the ten basic steps to problem solving are documenting, identifying, analyzing, formulating, evaluating, testing, iterating, creation, implementation, and
reflection. This also sparked my interest as I pondered over how there could be a concrete process of solving problems when there are various types of problems, ranging from the wicked and impossible to the complex yet tameable. My research again led me to a new discovery: while the steps taken to address an issue are routine, the way these steps are carried out vary. For example, a doctor trying to discover a patient’s sickness must document their symptoms in order to try and identify the sickness, whereas someone stuck in rush-hour traffic is not going to take notes on the backup, but they will make a mental note to themselves to avoid using that road again during rush-hour. The steps of the problem are thus the same, but the execution is different. Similarly, the seriousness of a problem classifies it under different categories. I was interested to learn in the lecture that wicked problems are “difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize” whereas a tame problem has “definite solution(s), that can be evaluated, and while it may be complex, does not change, is defined, and stable.” By first identifying what category an issue is, a solution can be easier to find. However, this leads me into another reason the subject of problem-solving interests me: is there such a thing as a solution?

Sticking to the example of the driver stuck in rush hour traffic, the simple solution would be to take an alternative route. However, everybody that is currently stuck in traffic is thinking the same thing which is then going to cause a backup on the alternative route, as well. Furthermore, it is often that one solution leads to new problems, a concept scientists have coined as evolution (Berezow 1). Evolution is an ever-lasting process which makes developing solutions discouraging as it is unavoidable that more problems will surface as a result. Creating and executing on the best possible solution, however, will help delay the appearance of new
problems or reduce the significance of them. Relating this concept back to the Mighty Mugs article, the initial conflict for Smaldone was that his coffee mug was unstable and spilled, breaking his computer. Being an entrepreneur, his solution was to invent, yet his invention led to even bigger problems, a cycle that will continue to repeat itself because evolution is inevitable. Going off that, the best solutions are the ones that return the greatest value and increase the delay of new problems surfacing. These solutions, as explained in the lecture, are one’s that avoid cognitive bias. Not judging a decision based on the outcome, but by the process taken to reach the solution, for instance, is known as outcome bias.

Understanding the different types of cognitive bias is a skill that I will carry forward with me in my professional career as situations tend to become more serious and require higher-level problem solving skills.

The last aspect of the lecture that I found to be the most interesting is the different types of thinking, categorized by computational & algorithmic thinking, innovative thinking, and design thinking. Computational thinking does not simply develop solutions, but also creates a process for arriving at that solution to help with future endeavours (Murphy 1). I would consider my thought process to be most similar to this category as I feel that technology expands my creativity and allows me to solve problems that otherwise I would struggle to find a resolution for. Algorithmic thinking is more systematic as it requires creating logical steps that use a set of inputs to produce a defined set of outputs (2). On the other hand, innovative thinking is similar to Smaldone’s mindset in the way that he chose to invent a product to find a solution to his problem. Lastly, design thinking is more of a conceptual technique that is used for vague problems with no definitive answer (3). Different problems require different types of
thinking, but everybody has a favorable process that they turn automatically turn to. The brilliant thinkers are the ones that can analyze the problem first and use that to influence their thought process and problem-solving. In one lecture, I learned the various types of thinking, different categories of problems, the basic steps to solving problems, and the importance of avoiding cognitive bias when developing solutions. This information has always been a subject area that has interested me and will be a topic I continue to research in the future because problem-solving is a competitive advantage that every employer seeks.

Problem-solving is not easy, but the best aspects of life have to be worked for. Transforming nothing into something is the most rewarding feeling and can only be attained if one can overcome adversity in the process. Overcoming this adversity is done by following the ten basic steps of problem solving and using knowledge of the different categories of thinking to begin analyzing an issue. Evolution has proved that all solutions are bound to lead to more problems eventually, but by avoiding cognitive bias these new conflicts can be less significant or delayed. In my professional career, I will continue to devote time and efforts to improving my problem-solving skills as employees are hired because employers see potential in their skillset that they believe will benefit a lackin part of the company's current situation.
Works Cited

Ashman, Lewis. "Why problem-solving skills are so important for your career."

