

5 Habits of Highly Successful Scientists: THE EDITORIAL

Dr. Hassaan Tohid

California Institute of Behavioral Neurosciences and Psychology
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Introduction

Earl Nightingale, one of the most well known personal development speakers and authors of the last century, defined success as "The Progressive Realization of a worthy idea." This means that the moment you start moving towards something worthwhile, you are already successful.

Therefore, success is not a destination; it is a journey you embark upon while working towards a goal. As long as you strive to achieve something, you are a success; otherwise, you are considered a failure.

Ever since I developed an interest in the subject of success and became a lifelong learner, I decided to embark on my own marvelous journey towards success and bring others along with me.

Consequently, I constantly educate my students on success through my social media videos. This article is yet another attempt to guide the students and readers of this journal who aspire to become exceptional and outstanding scientists in the future, providing them with principles of success that will help them achieve their goal of becoming successful scientists.

Numerous books have been written on the subject of success. Different authors have explained various secrets and natural or divine laws that govern success in this universe. I, too, firmly believe in the laws of success. We all know that success comes from hard work, discipline, dedication, and determination – qualities that top scientists already possess. However, in this editorial, I have chosen what I believe to be the top five habits or traits of successful individuals, in addition to hard work, discipline, dedication, and determination. I consider all of these success habits to be natural or divine laws of success, and any scientist who adheres to them is bound to achieve success.

advances in their field. They make a point of not missing any significant seminars, conferences, or webinars. This commitment to lifelong learning persists throughout their lives.

4- The Fourth Habit

This particular habit is one of my personal favorites. Highly successful scientists are not selfish individuals. They do not learn and grow solely for their own benefit; instead, they understand that as human beings, we are here to serve others. It is rightly said that our rewards in life are directly proportional to our service. The more people we serve, the more success we achieve.

Successful scientists comprehend this principle and extend their service to others through their writings in the form of research manuscripts, book chapters, and books. They also serve by speaking at various conferences as keynote speakers or presenters of abstracts and posters. Their primary motivation is not to earn promotions or salary raises through these opportunities. Their genuine desire is to share their knowledge and experience with others, with the intent of serving them.

Moreover, their research projects are designed to benefit others in some way. If they discover a medication, it is meant to treat ill patients. If they develop a diagnostic tool, it serves the well-being of other humans and living beings. They fully grasp that their research endeavors ultimately benefit mankind and all living beings. They understand that by serving others, nature rewards them with everything they desire for themselves. Therefore, success, promotions, higher income, respect, recognition, and prosperity naturally come their way. They know that when they place their focus on service, success inevitably follows.

Of course, the habits or laws I discuss in this article are not the only ones necessary for becoming a successful scientist; they are simply my top five from the list.

1- The First Habit

The first habit, which is essential for a successful scientist, is the habit of thinking. Thinking is undoubtedly the most important function performed by human beings. We have the ability to think, plan, calculate, and engage in cognitive functions. However, it is an unfortunate reality that very few individuals actually spend deliberate time thinking. Daily routines such as waking up in the morning, getting ready for work, driving, and performing daily tasks do not require intentional thinking. That is why most people go about their day on autopilot. However, to achieve success in life, it is crucial to carve out deliberate time for thinking.

Successful scientists understand the significance of thinking and therefore develop the habit of deliberate thinking. They recognize its importance in research, projects, and their overall future. Have you ever wondered why successful scientists often make new discoveries, formulate new theories, pose new questions, and invent new things? All of these achievements are only possible because of the habit of thinking. The human mind is an extraordinary force capable of achieving wonders if we learn to utilize it effectively.

Top scientists in the field have unlocked the secret of daily thinking. They contemplate what to work on, how to solve research problems, and how to find solutions. They also cultivate a special kind of thinking known as "critical thinking." This involves the ability to observe, analyze, and interpret situations in order to arrive at useful conclusions (1-2).

Thinking itself does not occur automatically; therefore, successful scientists allocate time for solitary reflection with a pen and paper. They spend anywhere from half an hour to a couple of hours engaging in deliberate thinking exercises every day. They understand that, just like our physical muscles strengthen with exercise, our thinking ability improves through regular mental exercise.

2- The Second Habit

The second most important habit that highly successful scientists develop is the habit of asking questions in

This habit of performing everything with the intention of serving others not only brings them success, but also provides immense satisfaction and joy.

5- The Fifth Habit:

The fifth and final important habit of successful scientists is their ability to be great observers. They possess a keen interest in observing everything around them. They remain fully present in the moment and never miss an opportunity to learn by closely observing how things work. They recognize that their learning greatly depends on their powers of observation. Each time we observe someone doing something or witness an event, we gain new knowledge as a result. To enhance their observational skills, successful scientists explore different activities and seek out individuals engaged in diverse pursuits.

Furthermore, they pay meticulous attention to detail in everything they do, thereby refining their observation skills. They also understand that improving their observational abilities necessitates working on their communication skills. Listening is a fundamental aspect of effective communication, and as such, they dedicate effort to enhancing their listening skills. This not only makes them exceptional scientists but also transforms them into better healthcare providers (4).

Successful scientists are aware of this fact and cultivate the habit of keen observation wherever they find themselves. Whether they are in their laboratory, a classroom, a library, or even a café or restaurant, they apply their observational skills to gain valuable insights.

Conclusion:

Successful scientists do not achieve success through luck; rather, they attain it by engaging in specific actions that others often neglect. In this editorial, I have outlined five key habits that distinguish top scientists and contribute to their exceptional success in both their personal lives and careers.

References:

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every situation. Furthermore, the type of questions they ask differs from those asked by the majority of people. They cultivate the habit of asking "why" and "how" questions instead of the typical "what," "when," and "where" questions. They usually already know the "what," "when," and "where" for reasons I will discuss in the next habit. As a result, they don't ask these common questions that an average person would ask. Their focus is on finding solutions to problems, and they are determined to explore multiple options for potential solutions.

Asking the right questions is a habit that anyone can develop. It simply requires practicing this skill, and soon you will find yourself naturally asking "why" and "how" questions in every situation. The next time you read something or hear news, challenge yourself to ask, "How did it happen, and why did it happen? Was there anything that could have been done to prevent or improve it? If so, how?" Even if it is a political news story about the world sinking into an economic recession, your immediate response should be to question its truth and consider how it could be prevented. If prevention is not possible, then focus on how you can solve the problem for yourself and your loved ones. By developing this mindset, you are well on your way to becoming a successful scientist. When you find yourself in a laboratory working on a challenging research question, your habit of asking the right questions will aid you in solving the problem at hand. Additionally, this habit will also contribute to your growth as an excellent clinician in the years to come (3).

3- The Third Habit

For the majority of the world, education comes to a halt once we graduate from university and receive a diploma or degree. However, this is not the case for successful scientists. They understand that true education begins after graduation. They recognize that the graduation ceremony is called "commencement" for a reason – it signifies the start of a new phase in life. Consequently, their real education begins after graduation.

Successful scientists invest their time in reading books, building home libraries, and taking courses, rather than simply indulging in entertainment. They develop the habit of lifelong learning and remain well-informed about the latest developments in their field. As mentioned earlier, these scientists possess knowledge of the "what," "when," and "where." The reason for this is that their dedication to continuous learning and growth enables them to stay updated with the recent

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3- Miles LM, Rodrigues AM, Sniehotta FF, French DP. Asking questions changes health-related behavior: an updated systematic review and meta-analysis. *J Clin Epidemiol.* 2020;123:59-68. doi:10.1016/j.jclinepi.2020.03.014