Staats, B. R. (2018). Never stop learning: Stay relevant, reinvent yourself, and thrive. Harvard Business Review Press.

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The book consists of ten chapters, an extensive note, an index, acknowledgements, and an overview of the author. He addresses the necessity to keep on learning, especially in today's economy where change is constant. As technological automation continues to grow, an increased number of routine jobs are redundant. To survive in this new environment, individuals require continual learning to improve their knowledge and impact on the economy. Staats stresses the importance of dynamic learners – people who continue to outperform peers and realise higher impact and fulfilment by leveraging learning to build more knowledge. To help individuals to be more effective lifelong learners, he outlines a framework and several principles and practices.

In chapter 1, Staats highlights four interrelated dynamics of learning workers – routinisation, specialisation, globalisation, and scalability. Staats provides readers with statistical data of the manufacturing and agriculture industry's employment rates from the 1850s to 2000s, where one would see the significant drop in labour costs in these industries. This change's leading driver was due to productivity improvement resulting in routinisation. As technological investments and management practices increased, productivity was enhanced, and labour need[ed to be] drastically decreased. Such implications signalled the decreasing value of repetitive manual labour and the need for change.

In contrast, nonroutine tasks saw a growing trend (e.g., scientists or caregivers). Such findings emphasised the critical importance of continued learning and growth. Specialisation was the next driver of the learning economy. As individuals gain familiarity in an area, they would achieve more opportunities to learn, which allowed increased awareness of the knowledge they are unaware of. Staats uses the medical field as an example to illustrate his point. Doctors started to explore human anatomy to learn more effective remedies. Girolamo Fracastoro first suggested that bacteria and viruses were the cause of disease in the 1500s, and the theory was further expanded 200 years later by Marcus von Plenciz and so on. With the advancement of human anatomy knowledge, it became necessary for more profound familiarity with each part of the body, leading to the present medical specialities. (This would also probably explain the increasing thickness of textbooks with every new edition).

The third driver of the learning economy is globalisation. Advanced technology has enabled people to work remotely, which allowed global customers to have access to solutions for their problems as such governments changed their rules for companies to bring in the necessary equipment and services. Such an opportunity granted the technological industry to scale up their operations, resulting in remarkable growth. The example implied the importance of staying relevant through sharing of knowledge globally. Lastly, scalability – one's ability to scale one's learning -- is crucial to the learning economy. By disseminating new knowledge beyond oneself and reaching larger audiences, individuals can collectively increase efficiency to innovate and respond to change.

Staats investigates learning by marrying two academic fields: operations and behavioural science. He thus gains a unique perspective that involves three steps which structure the subsequent chapters of the book:

1. Figuring out what you need to do to become a dynamic learner;

2. Identify why you do not do these things;

3. Understand the steps to overcome challenges.

In the next chapter (2), Staats starts his writing by questioning the readers: "Why don't we learn from failures?" He offers a case study, multiple reasons, and its consequences. Contrary to most success stories we hear about when a failure occurs, the hero realises what is wrong and comes up with a great solution/discovery (yay!). The norm is somewhat contrasting – especially when we do not learn from failures even though we ought to. Staats provides an example of "learning from failure" through the case study of Thom Crosby, CEO of Pal's Sudden Service. Crosby was intrigued to release a new product line – salad, which was a trend at that time. After several field tests, the product was launched, but the customers' response was rather lukewarm, and the product line was eventually terminated after approximately $6 million had been lost. However, he did not dwell on his mistake; instead, he took it as a form of education. He recognised his error and stepped back to consider and understand what went wrong and improve the approach going forward.

Staats presents a few reasons why it is challenging to incorporate failures in our learning. The first reason is one's denial when facing failure. The scientific term for this is atychiphobia – a fear of failure. When one fails, the body experiences pain in the form of embarrassment, shame, or anxiety. In the context of an organisation, fear and pain are experienced as: no promotion, lowered expectations, etc. Such outcomes throw an individual into uncertainty; therefore, to avoid such pain (threat), humans deny or downplay their failure, in turn losing the opportunity to learn from mistakes and improve.

A contribution to fear of failure is being afraid of taking risks because of one's overemphasis on the possible negative outcomes. We do not take risks as humans are fearful of loss. Research shows that the potential gains should be twice as great as the risk for humans to act. Therefore, if the anticipated outcome is more negative than positive, the likelihood of action is minute. Another reason is that people overestimate their future suffering. It was researched that people are poor in predicting an adverse event's intensity or duration, such as losing a job or flunking a test. Individuals tend to expect that bad possible outcomes outweigh the joy of success; hence, they would instead choose inaction than losing and suffering. We also overestimate the adverse effects of failure because we do not recognise that it is a normal part of life. Research showed that humans react to bad outcomes in four steps: attention, reaction, explanation, and adaptation. Attention is when we recognise a failure, and reaction is the response to an adverse event, which is usually negative (shame, embarrassment). Next is explanation where we understand what occurred. Adaptation where we adapt to the new information found. The first two steps are usually fast to occur and accepted, but the last two steps are where learning may be hindered. This is because we misattribute the events and adjust our standards and convince ourselves that no failure occurred, rather than adapting. An example would be attributing the mistake to a situation instead of accepting responsibility and improving oneself.

So, what can we do to avoid hindering our learning? We have to first destigmatise failure by bringing the struggles into the open. By sharing one's failure, individuals can learn from each other and improve performance. It also means that the individual is thinking about acting, which increases the probability of learning new things. Second, ambiguity needs to be removed. We revisit the "explain" step by encouraging individuals to take responsibility and not blame the situation for one's mistake. Finally, to overcome and learn from failure, one must recognise that the mistake is typically not as bad as you think— chapter 2's key; value failure – one's first step to becoming a dynamic learner.

In chapter 3, the content discussed that learning is gained through process focus and not outcome focus. Process focus is central for learning as it involves understanding what and how inputs affect essential outputs. Hence, to have an outcome, individuals need to understand how inputs contribute to the task and how they interact to produce a result. The example given by Staats is the game of blackjack. The game's objective is to get closer to 21 than the dealer without busting over 21. It encompasses careful strategising for every situation and stimulating the possible outcomes for the best probability of winning. Despite the strenuous process, it is possible to boost the gain as all the inputs (cards) and interactions (rules for where dealer hit or stay) are known. By being process-focused, individuals can see through the noise surrounding the signal and increase knowledge. A process focus also builds discipline in learning by having specific learning goals that facilitate productive learning habits.

The challenges that prevent people from having a process focus are outcome bias and performance mindset. The former refers to how one interprets the events that occurred; if the outcome is positive, the evaluation is that the process was fair and vice versa. The latter refers to a fixed mindset where success or failure is due to intelligence. These two factors are detrimental and hinder dynamic learning. Thus, people need to weigh process focus more significantly than outcome focus.

Chapter 4, entitled "Asking questions", explores how curiosity leads to learning. Learning in all contexts begins with a question. By questioning the information given, it helps us identify what our exploration is meant to answer. At the same time, we also fill in the blanks on our knowledge. Asking questions also opens up the opportunity for other people to provide help, and the easiest way to go about it is to ask: "What do you think?" and await the response with an open mind. The process seemed so straightforward, yet individuals tend to only reply a question with "I don't know" and cease all forms of learning. Why is that so? The first explanation might be the need for speed. In getting things done, it involves answering questions instead of questioning. An example would be doing routine tasks where we do not question the process but blindly follow them to a tee. In doing so, individuals may not understand things as well as they think since they are just assuming that is how the work gets done. Another reason we fail to ask questions is self-censoring. In self-censoring, we believe we should not ask questions or lack the awareness that we need to do so. This is because people are worried that others might think less of them when they do not have an answer. If one lacks the awareness leading to the limiting of questioning, it could be due to how we seek and respond to information. When people decide according to the information most readily

available, it restricts individuals from asking questions. They are quick to assume that they understand the situation according to the data. This phenomenon is also called availability bias. Finally, the final challenge of asking questions is confirmation bias. Individuals look to confirm their beliefs by either choosing a channel that would say 'you are right' or one who would question your perspective. The former option is usually the norm. Thus, such a biased approach in evaluating data and asking questions prevents lifelong learning. To overcome such biases, people need to have strong opinions that, however, are weakly held to encourage new perspectives. One could also reach out to others for a different perspective by rejecting one's viewpoint and looking for evidence to support the alternate. Listening actively and waiting patiently before concluding is the next step. Instead of being defensive when one's views are challenged, one should listen, reflect and be open to suggestions.

Chapter 5 attempts to explain the necessity of recharging and reflection amidst learning and not constant action. Staats tries to convince readers that contemplation is a crucial factor for effective learning. Contemplation provides two components: reflection and rejuvenating. The concept is quite simply: thinking about what is happening around us creates knowledge that undergirds learning. Researchers propose two systems that sit beneath how we process information and learn – single and double loop processes (Argyris, 1977). Staats focuses on the double-loop process, which has two benefits for learning. The first one is cognitive; we build knowledge. As people take the time to reflect, they rediscover things that they do not understand and are clearer about the things they know but need further understanding. They would also recognise and make connections between new ideas. Next is behavioural; reflection builds self-efficacy – "the belief in one's capabilities to organise and execute the course of action required to manage prospective situations." (p. 82). By engaging in reflection, the double-loop process is activated, motivating learning. Apart from reflection, individuals also need to make sure that the physical body is well-rested and recharged to tap into our analytic horsepower.

Despite knowing the benefits of reflection and relaxation, it is a challenge for individuals to engage in the practice due to action bias – we think we need to be always on the go, and rather be seen doing something rather than nothing, which severely hampers learning. There are potentially four things that prevent us from pausing: regret, confused action with progress, underestimating the resulting cost, and underestimating the potential gains. Regret is derived from disappointment regarding an alternative course of action. In other words, people fear making the wrong choices and would instead choose inaction, which prevents them from pursuing strategies or learning. The second driver is the confusion of action with progress. This phenomenon is where people complete small but relatively unimportant tasks that produce minute positive feelings, but they have little to show. This occurs when we view action and progress as synonymous; therefore, it is crucial to decouple the two to overcome action bias.

Thirdly, people do not take breaks to reflect as they underestimate the resulting cost. This can be seen in the impact of workload on performance. For example, if nurses were to attempt to work continuously without rest, they would have a higher chance of making a mistake, such as administering the wrong medication. Hence, not taking time to recharge and reflect could have higher costs. Lastly, we underestimate the gains from reflection. Staats' research found that just a five-minute break could improve workers' productivity as an exhausted mind may be limited in its understanding and learning. All in all, dynamic learners fight the urge to act meaninglessly and recognise the essence of resting and reflecting. Staats ends the chapter with five strategies for better learning.

1. Block out time for thinking. This action engages one's slow, thoughtful information-processing system to spark double-loop learning;

2. Incorporate premortems for important decisions. Premortems help people think carefully about a topic and forces one to think of the things that may go wrong. They may also prevent overconfidence and assumption of the success of ideas;

3. Conduct an after-action review (AAR). By doing so, people are creating an opportunity for improvement;

4. Plan to take breaks to rejuvenate during workdays;

5. Take a vacation to avoid burnout, recovering energy, and clearing mind for future learning.

The next chapter (6) focuses on Being yourself to learn. As humans get older and join organisations for work, the temptation to conform to the rules increases, which benefits us by lowering our stress and anxiety to meet expectations. However, the urge to fit in also limits our ability to learn. Staats illustrated how being ourselves leads to learning for two reasons: motivation and positive emotions. When we are truly ourselves, we are more likely to expend necessary effort and do things stemming from intrinsic motivation (mastery, autonomy, purpose). For individuals to feel satisfied during their work, they need motivational factors such as task achievements, growth, and responsibility. In such a scenario, we are then likely to also engage in our work and work harder and longer and learn more. Being yourself also gives rise to positive emotions which reshape the learning process. Psychologist, Barbara Fredrickson labelled this model as "broaden-and-build". It was theorised that positive emotions occur in a safe space, thus encouraging us to think more broadly and diversely and expand our awareness of situational factors. Moreover, positive emotions also stimulate our reaction time and allow us to be more observant, drawing ample cognitive resources. Hence, positive emotions broaden learning and understanding of our environment.

Nevertheless, being authentic is portrayed as a challenge as we face conscious and unconscious barriers. An example

is the imposter phenomenon. It occurs when we question our capabilities and doubt ourselves, which makes us take on someone else's guise to get the required job done. When we act like someone else, we not only risk losing our identity (harming ourselves subconsciously), but we also miss out on learning opportunities. There is then a higher risk of cardiovascular diseases and other health issues such as anxiety and negative emotions detrimental to learning. Too much anxiety interferes with decision making and action taking and limits the amount of information retrieved. To overcome and be yourself, one needs first to discover how to free yourself to be you. The simplest way to go about doing this is to engage in self-expression and reflect what they find meaning in. Another way is to learn to identify patterns of increasing positive feelings in daily activities. One could consider surrounding oneself in things that make one happy. These elements allow our individuality to stand out, making people more positive and motivated to learn.

Chapter 7 is introduced as follows: "Playing to strengths, not fixating on weakness". Staats substantiates this point by stressing the benefits of focusing on strengths. First of all, strengths can create motivation. Albert Einstein is quoted as having said: "That is the way to learn the most, that when you are doing something with such enjoyment that you didn't notice that the time passes." (p. 119). Individuals are more engaged and motivated when making discoveries in the tasks we complete, and these positive effects are realised by focusing on strengths. Our internal states (e.g., physical health) also benefit from focusing on strength. It was reported that individuals who used their strengths during the day were more energetic and well-rested. Strengths also create external motivation when achieving goals leads to recognition and praise from others. If strengths can be so powerful for learning, why are we still so fixated on our weakness? Perhaps, we are too obsessed with fixing our weaknesses to identify our strengths. People tend to dwell on things that went wrong due to the belief that we need to excel on all dimensions to shine in the long run. Such faulty beliefs impede a person from having the prospect to develop their strengths further. But that does not imply that we totally ignore our weaknesses. Instead of focusing on qualities that do not add value, we should concentrate on key qualities that enable us to create value and differentiate ourselves.

To successfully learn from our strengths, we need first to identify them. Doing this alone is a challenge, but one need not fret – insights can be gained from others, such as people who know us well. Receiving feedback from others also helps consolidate the stories and opens up more improvement opportunities. Another key to learning from our strengths is carefully evaluating our critical weaknesses. It is necessary to do so as the weakness may be in the way of accomplishing a larger goal. Feedback garnered about one's weakness can help support our strengths to counteract this. Staats closes the chapter with a caution to not be overconfident with our strengths and become arrogant.

Chapter 8 explores how successful learning could be attained by combining specialisation and variety. Staats points out that learning would be compromised if an individual is too specialised or too varied and that by marrying both components, learning would be optimised. Specialisation

is a powerful tool as it could activate a force: the learning curve. As one accumulates experience, it improves their performance and knowledge on a specific matter, even if at a decreasing rate. A focus on specialisation saw its benefits with more efficient working methods. However, it has its setbacks as routine work decreases motivation to learn, leads to a too narrow view of experience, becomes irrelevant with continuous change and stunts learning. To overcome such a challenge is to vary activities. Variety alters our knowledge and motivates people to connect prior learning to novel information. Contrasting with specialisation, variety offers more ideas to be drawn upon, and it encourages people to participate in different activities to overcome boredom. But variety also has its share of disadvantages: surface learning due to insufficient knowledge, having to relearn key aspects of older tasks after engaging in varied tasks, and overloading the working memory leading to stress and impaired performance. After exploring the pros and cons of the two aspects, Staats suggests that taking either approach would eventually stun growth in learning and takes an exciting methodology to combine both tactics. In practising the approach, a T-shaped person is created – highly skilled in a broad set of things and an expert in a narrower discipline. Staats provides an example of a person engaging in T-shaped learning – Sloan Gibson, US cabinet secretary (Bernstein et al., 2014; Buell et al., 2016) and ends the chapter with pointers how to become a T-shaped learner.

Staats introduces chapter 9 with some personal reflections of his academic route. He echoes how fundamental results delivery stemmed from the importance of process, dealing with failure, asking questions, building the right profile of expertise, etc. Most importantly, a theme that arose in these reflections was: repeated interaction through learning with the same people dramatically improved performance. This finding leads to the core of his doctoral dissertation, whereby he realised that apart from having strategies to learn by ourselves, the people we interact with are also integral to one's eventual success or failure.

Why do others impact on one's learning? It could be due to relationships leading to motivation (intrinsic/extrinsic). Early research suggested that bad relationships can dissatisfy people but not motivate us. In contrast, a good relationship could improve personal health and expectancy and generate social support. Such an occurrence is called prosocial motivation – a wish to help and encourage others. When bringing co-workers' relationships closer, productivity improved, substantiating that relationships drive improvements. Another benefit obtained by learning from others is the incorporation of new knowledge. When working with others, individuals gain information and experiences that one is unfamiliar with, which leads to an increased opportunity to learn. Apart from such benefits, people also process information more efficiently and solve problems jointly when surrounded by others as everyone's knowledge could be combined and interpreted differently to create ideas.

Having learnt of the advantages of learning from others, why do people still struggle to put this into action? Firstly, we underplay the collaborative efforts and show the least appreciation in others' role in our success. It is also called – coordination neglect, where groups are better at dividing

labour than coordinating labour due to the inability to divide a task and then integrate it effectively (Heath, & Staudenmayer, 2000). One other challenge comes in finding and extracting their knowledge. People tend to focus on shared information rather than unique information when searching for information. This is because humans tend to look for information consistent with existing views and feel good intrinsically when sharing information that both parties know well. However, that compromises learning.

The next challenge is an interpersonal one where it was revealed that diversity often harms learning and performance. When surrounded by individuals with differing perspectives, people are less accepting of others' views. This is termed naïve realism (a human tendency to believe that we see the world around us objectively, while those who disagree with our perspective must be uninformed, irrational, or biased: Ward et al., 1997). If these differences were converted into productive conflict, this could lead to the generation of insightful ideas. However, conflict becomes personal and impedes learning more than usual. Henceforth, to avoid wasting energy and allow successful learning from others, Staats proposes a four-step process: (1) Build relationships by shifting one's mindset to focus on interactions with others; (2) finding ways to work with the same people repeatedly to create a foundation for learning; (3) taking an inquiry approach to working together by collaborating; and (4) reconceptualising the point of interaction by sharing and teaching others.

Staats concludes the book with four mindsets that all individuals should have in the learning economy to adjust, learn, stay relevant and excel:

1. Focused: choose topics to learn and focus on them deeply to attain sufficient knowledge;

2. Fast: one needs to pick up learning in the correct direction and also speed up quickly in that area;

3. Frequent: be open to learning opportunities as chances often present themselves in unexpected ways;

4. Flexible: individuals need to be flexible enough to decelerate and switch to new opportunities.

Staats advises readers to keep in mind that learning is hard and needs constant attention. It is a never-ending process and requires one to recognise the challenge and seek to overcome it, with determination. With that, "Dynamics learners are ready for this process. Happy Learning" (p. 171). Never stop learning argues that for individuals to persist in the everchanging environment, lifelong learning is a necessity. Staats' extensive research identifies the challenges and reasons people are resistant to change and learning, which hinders their self and workplace progression. The book pinpoints the drivers of change in employment, such as globalisation, specialisation, and productivity improvement. People need to recognise and apply it to stay relevant in the competitive environment. I found chapters 2, 7, and 10 exceptionally intuitive. Chapter 2 discusses valuing failure,

and Staats' research hit close to my heart. People are afraid to be defeated not only because it is painful when losing face, but also because society frowns upon failure. The society is less forgiving when it comes to failure, especially if the costs are high (Assomull, 2017). However, with Staats' approach to valuing failure, it is hoped that a society more tolerant to making mistakes may be created. Chapter 7 would also benefit readers, as it empowers individuals to reflect on their strengths and be less disapproving of one's weaknesses. Instead, the author suggests that readers develop their critical weakness which can help support their strengths. Staats concludes the book with a motivational note and stresses "dee-termination" (using his child's pronunciation of the word, stressing the first syllable) in dynamic and lifelong learning. Despite its brevity (two pages), the final chapter's impactful and motivational words would leave readers inspired.

The book can be critiqued for its lack of educational theories and principles. As most of the author's findings and writings stemmed from his research discoveries, it could be seen as a limiting factor within educational pedagogies. The first half of the book also contained stronger arguments and was more in line with the book's title in staying relevant and reinventing oneself. But the latter half of the book felt more like learning exercises that were less beneficial to me, but this would vary with readers. As a whole, the book was an interesting read. Although the book addresses adults in the business world, I would recommend individuals who are interested in lifelong learning and focused on personal improvement to pick this book up. Staats' approach to lifelong learning is practical, and its framework guides readers to become more effective learners. By leveraging on the insights gained from the book, actionable knowledge is created.

Additional references

Argyris, C. (1977). Double loop learning in organisations. *Harvard Business Review, 55*(5), 115-125.

Assomull, A. S. (2017, November 8). Fear of failure holding Singapore back: Study. *The Straits Times*. https://www.straitstimes.com/singapore/fear-of-failure-holding-spore-back-study

Bernstein, E., Gino, F., & Staats, B. (2014). Opening the Valve: From software to hardware (A)(B). *Harvard Business School, 15,* 9-415.

Buell, R. W., Huckman, R. S., & Travers, S. (2016). Improving access at VA. *Harvard Business School Case 617-012*, 6.

Heath, C., & Staudenmayer, N. (2000). Coordination neglect: How lay theories of organising complicate coordination in organisations. *Research in organisational behavior, 22*, 153-191.

UNC Kenan Flagler Business School. (2021). *Bradley Staats.* https://www.kenan-flagler.unc.edu/faculty/directory/bradley-staats/

Ward, A., Ross, L., Reed, E., Turiel, E., & Brown, T. (1997). Naive realism in everyday life: Implications for social conflict and misunderstanding. *Values and knowledge*, 103-135.