How Children Succeed: Grit, Curiosity, and the Hidden Power of Character Study Guide

How Children Succeed: Grit, Curiosity, and the Hidden Power of Character by Paul Tough

BOOKRAGS

Contents

How Children Succeed: Grit, Curiosity, and the Hidden Power of Character Study Guide.....1

Contents.....2

Plot Summary.....3

Introduction.....5

Chapter One: How To Fail (And How Not To).....7

Chapter Two: How To Build Character.....10

Chapter Three: How To Think.....13

Chapter Four: How To Succeed.....16

Chapter Five: A Better Path.....18

Characters.....20

Objects/Places.....22

Themes.....25

Style.....27

Quotes.....29

Topics for Discussion.....31

Plot Summary

How Children Succeed is a collection of Paul Tough's research on child development and educational reform in America, particularly as it affects at-risk children living in poverty.

In the introduction, author Paul Tough introduces the book's central argument, that character development is more important to a student's future success than his or her IQ. Tough visits a new school, Tools of the Mind, which focuses primarily on character rather than cognitive skills as a way of preparing young learners for their academic futures, even though this practice goes against the mainstream belief that cognitive development, which arguably leads to a higher IQ, is the best head start for toddlers. By recapping a series of educational experiments and research, Tough creates an atmosphere of interest and concern about the American school system, particularly its effects on at-risk students. Already in the introduction it's made clear that studies show that students with a specific set of character traits, "persistence, self-control, curiosity, conscientiousness, grit, and self-confidence," seem to have a much higher success rate than students without them, leaving Tough to question whether these traits can be trained or if they are innate, and what programs can be made available to both teachers and students to ensure effective educational reform.

In Chapter One, "How To Fail (And How Not To)," Tough introduces the reader to two women making great waves in educational reform: Nadine Burke Harris, a researcher who studies the biological effects of stress on children's lives, and Elizabeth Dozier, the principal of Fenger High School, one of the worst high schools in the United States, and a school that will be a focal point of much of the novel. Together with her fellow researchers, Burke Harris devised a system of recording traumatic events in her patients' lives, and after collecting their personal histories, assigned each an ACE (Adverse Childhood Experience) number. Her results showed that patients with high ACE numbers were not only at higher risk for medical conditions (such as anxiety, depression, and cancer), but children with high ACE numbers also performed poorly in school and had a lesser chance of success in their adult lives than students with low ACE numbers. Research also showed that students with high ACE scores struggle to make secure attachments to their caregivers, another important facet of later success.

Chapter Two, "How to Build Character," focuses on Tough's primary message, that character development is more important than IQ in determining a student's future success. Throughout this chapter, Tough compares two vastly different schools: KIPP, an education training program for at-risk teens in inner city Chicago, and Riverdale, an affluent school in one of the richest neighborhoods in New York. The principals of both schools, although dealing with very different students, both believe that having grit, determination, and self-control is more important than academic intelligence. Tough goes on to discuss a variety of programs in which it was discovered that when students feel motivated and determined to succeed, their IQ tests higher. Essentially, Tough argues that teachers must convince their students that everything about them, from their

IQ to their personality, is malleable and can be altered or transformed when properly trained.

Chapter Three focuses primarily on a New York educator, Elizabeth Spiegel, and the work she's done with inner city youths through her chess program. Tough is particularly drawn to Spiegel because her lessons, like those of the successful educators discussed in previous chapters, focus on two executive functions: cognitive flexibility (the ability to see alternative solutions to problems), and cognitive self-control (the ability to substitute more effective, less obvious solutions for natural reactions). In her own way, Spiegel is teaching her chess players grit, curiosity, self-control, and optimism.

In the remaining two chapters, Tough explores additional movers and shakers in education reform, following their inventive programs and the effects made in disadvantaged communities. What ties all of these stories and experiments together is the resounding message that character development is more important than intelligence, every single time. Tough's message throughout the novel is clear: teachers, not students, are the key to the future.

Introduction

Introduction Summary and Analysis

In the book's introduction, journalist and author Paul Tough visits a variety of elementary school classrooms to analyze their different methods of educating children. The school, Tools of the Mind, a pre-kindergarten program, focuses on teaching behavioral skills rather than academic information. Students are taught how to control their impulses, stay focused, avoid distractions, manage their emotions, and organize their thoughts rather than the basics of reading, writing, and arithmetic. Tough's wife has just given birth to a baby, a son named Ellington, whom Tough invariably thinks about during his school visits: "Ellington would be growing up in a culture saturated with an idea you might call the cognitive hypothesis: the belief, rarely expressed aloud but commonly held nonetheless, that success today depends primarily on cognitive skills ... and that the best way to develop these skills is to practice them as much as possible, beginning as early as possible" (Page xiii). The academic world, Tough finds, sends the message that intelligence, rather then character or behavioral traits, determines an individual's lifetime success. Schools like Tools of the Mind, however, seem driven to prove that this is not true. They seek to prove that character traits are just as important, if not more so, than IQ. In a way, this question will be the central question around which the entire book revolves: which is more important to a child's lifetime success, their intelligence or their character?

Cognitive development has become a big business in the past twenty years. According to Tough's research, "Billions of dollars' worth of books and activity gyms and Baby Einstein videos and DVDs [have been] sold" (Page xvi). In contemporary society, it is generally believed that disadvantaged children fall behind academically because they aren't given the same academic head start that successful students are given. In Tough's mind, however, this theory is simply too neat, too linear. Surely academic success relies on more than the simple equation, "Inputs here lead to outputs there." Tough claims that packing toddlers' brains with as much early information as possible isn't nearly as valuable to their future success as teaching them the qualities of "persistence, self-control, curiosity, conscientiousness, grit, and self-confidence" (Page xv).

One teacher whose work Tough is particularly interested in is James Heckman, a Nobel Prize winner and economist at the University of Chicago. Since winning the Nobel Prize, Heckman has focused his studies on the skills needed for success. How do these skills develop in childhood? Are there interventions that can be made to help children succeed? Heckman focuses much of his study on students who have graduated with General Education Development degrees (GEDs). What's interesting about the degree is that it was initially created as a measure of cognitive skill. In the 1950s, the degree was created for students who already had the knowledge and smarts to finish high school so they wouldn't waste their time in class. These students could simply take a test to prove they had the skills, and move on to college. In today's society, however,

one in seven young people holds a GED instead of a high school diploma, but the GED, which had been created to showcase academic success and intelligence, essentially symbolizes an academic failure. Only three percent of GED recipients enroll in a four-year university or complete further education (even at a two-year community college) compared to 46 percent of high school graduates. Heckman's study focuses on discovering the psychological traits that allow high school graduates to complete school while others drop out. For most students, high school is boring and often unrewarding, but students who succeed seem to recognize how important their degree will be in their future, so they persist, knowing that the payoff for their time, struggles, and boredom, will be seen in the future. This is called "delayed gratification," and will be important to Tough's theories later in the book.

Throughout the introduction, Tough summarizes a variety of interesting experiments and studies, most performed in low-income communities. One example is the Perry Preschool, a quality two-year preschool program studied in Ypsilanti, Michigan in the mid-1960s. In this experiment, children were recruited from "low-income, low-IQ" families. Half (the treatment children) were admitted into Perry, and half (the control children) were left to "fend for themselves." The students were then tracked in an unprecedented study that went far beyond the students' experiences and success in elementary, middle, and high school, but followed the students for the rest of their lives. The hope was that scientists would be able to study the impact of early childhood education in an adult's life even after their academic career came to a close. The experiment is generally thought to have been a failure because while the treatment children performed significantly better academically than the control children for the next few years, their early success waned and by the time the students reached third grade, all the students were performing at the same level. Psychologists thought this proved that early childhood development programs had little lasting effect. However, the study later showed that the treatment children were "more likely to graduate from high school, more likely to be employed at age twenty-seven, more likely to be earning more than twenty-five thousand dollars a year at age forty, less likely to have been arrested, and less likely to have spent time on welfare" (Page xx). While the program may not have benefited the treatment students academically, it clearly groomed their "noncognitive skills" leading to a higher likelihood of lifetime success.

Tough also meets with a variety of students, including seventeen-year-old Kewauna Lerma, a student from the inner city who struggled with everything from childhood abuse to abandonment issues, and fighting in school to poor grades. Yet when Kewauna was a sophomore in high school, she was enrolled in a three-year intensive college prep program. Now, in the middle of her junior year of high school, Kewauna boasts a 4.2 GPA and is faced with the decision of which colleges she should apply to. If she were to follow a stereotype, Kewauna would be expected to drop out of school, get pregnant while still a teenager, work a low-paying job, and potentially live off benefits. Yet she has somehow broken out of her family's history of poverty to create a better future for herself. Tough asks, why? This introduction sets up the premise for the entire book: who succeeds in life and who fails? How can parents and teachers prepare children for a successful adulthood?

Chapter One: How To Fail (And How Not To)

Chapter One: How To Fail (And How Not To) Summary and Analysis

Two women, Nadine Burke Harris and Elizabeth Dozier, were born in very different circumstances. Burke Harris, the daughter of wealthy Jamaican immigrants, was raised in a well-off, mostly white neighborhood, while Dozier, the unlikely product of an illicit relationship between a nun and a prison inmate, was raised on her mother's meager sole income. Despite their vastly different upbringings, Burke Harris and Dozier share the same goal: to help young people in need. Burke Harris became a pediatrician and opened a clinic in one of the poorest neighborhoods in San Francisco, while Dozier became the principal of Chicago's Christian Fenger High School, one of the most troubled high schools in the United States. While many troubled schools in the United States must beg for funding, Fender's status as one of the worst schools in America has intrigued educators for many years, and as a result, Fenger has been the focus of repeated ambitious and well-financed reforms. As a part of President Bush's "No Child Left Behind" policy, Dozier took over as principal of Fenger, firing most of the administration and teachers, and replacing them with up-and-coming ambitious, young staff.

Fenger is a difficult school to manage: "The majority of our students are living in poverty, from check to check ... A lot of them live in neighborhoods with gang problems. I can't think of a single kid who doesn't face some kind of serious adversity" (Page 5). A quarter of the female students at Fenger are either pregnant or already teenage mothers, and the threat of violence in the hallways is ever-present. After a horrific fight that left one student dead, Dozier has enacted a zero-tolerance policy for violent behavior. Actions as seemingly petty as throwing a gang sign earns students a mandatory ten-day suspension. The current program Dozier is running involves twenty-five of the most at-risk students enrolled in an intensive mentoring program to address not only their academic shortcomings, but also their traumatic home lives.

Meanwhile, Burke Harris seeks to discover the biological effects poverty has on children. She opened a free clinic in San Francisco that immunized entire communities against diphtheria, whooping cough, and tetanus while also offering free treatment for asthma management and nutrition. Although Burke Harris had wonderful intentions - and certainly made a difference in her community - she was disturbed by the number of anxious, depressed, even suicidal children that she treated. In her pursuit to make a bigger impact, Burke Harris realized that, "In neighborhoods like Bayview - Hunter's Point and Roseland, many of the problems we generally think of as social issues - the province of economists and sociologists - are actually best analyzed and addressed on the molecular level, down deep in the realm of human biology" (Page 9).

In 1995, a group of scientists began handing out questionnaires to incoming medical patients in California, asking questions related to childhood experiences including "physical and sexual abuse, physical and emotional neglect, and various measures of household dysfunction, such as having divorced or separated parents or family members who were incarcerated or mentally ill or addicted" (Pages 9 - 10). The scientists then assigned each patient an ACE (Adverse Childhood Experience) number. Scientists were shocked to find that, "the higher the ACE score, the worse the outcome on almost every measure from addictive behavior to chronic disease" (Page 10). Burke Harris discovered that one of the reasons why traumatized children are at a high risk for medical complications is "The Firehouse Effect." Essentially, Burke Harris argues that when children aren't taught how to properly cope with their emotions (such as stress), the body's natural reaction is to manage the emotion with every method available. She likens the human brain to a firehouse stocked with state-of-the-art fire trucks. Every time the alarm goes off, the fleet of fire trucks races in the direction of stress. While this is a seemingly effective method of quelling fires, the problem with the human brain is that over time, the system begins to break down: if your pulse quickens every time you're stressed, you are more likely to develop erosclerotic plaque, which leads to heart attack, for example. Burke Harris found that ACE numbers affect students biologically (making them more susceptible to medical complications), but also academically: "Among her patients with an ACE score of 0, just 3 percent had been identified as having learning or behavioral problems. Among patients with an ACE score of 4 or higher, the figure was 51 percent ... Children who grow up in stressful environments generally find it harder to concentrate, harder to sit still, harder to rebound from disappointment, and harder to follow directions. And that has a direct effect on their performance in school" (Page 17).

Scientists also studied the relationship between poverty and stress another way: Cornell University scientists Gary Evans and Michelle Schamberg tested a variety of students (half from impoverished neighborhoods and half from middle to upper class neighborhoods) on their ability to retain information while playing the board game Simon. It came as no surprise that the students living in poverty did worse on the game than the middle class students, but after correlating the students' performance on Simon with their childhood traumas, Evans and Schamberg discovered that it wasn't the poverty that affected the students' abilities; it was the stress that went along with that poverty. Children living in stress often process their emotions one of two ways: internally or externally. Tough uses two Fenger students as examples. Monisha turns her stress inward and deals with an onslaught of anxiety disorders from panic attacks, to hair loss and uncontrollable shaking. Mush, on the other hand, turns his stress outward, and is constantly being suspended from school for fighting, acting out in class, and eventually, breaking the law. For cases like Mush's, Tough says the clock is ticking particularly fast. At some point, the students transform from disturbed child (crying out for help) into a culpable man (whom society often fears rather than pities). Through spending time with students like Monisha and Mush, Tough begins to see how the two schools of study - behavioral and biological - begin to converge.

One interesting study Tough explores involves a group of rats in a neuroscience lab at McGill University. Scientist Michael Meaney noticed that when baby rats (pups) were removed from their pens for inspection, some of the mothers (dams) licked and

groomed the pups when they were returned, while some of the dams ignored their pups completely. Meaney discovered that when the pup was removed from its pen, it produced anxiety (a flood of hormones). Dams that licked their pups upon return seemed to counteract that hormonal surge, thus counteracting their pup's anxiety. Over time, Meaney discovered that pups that had been licked and groomed "were better at mazes. They were more social. They were more curious. They were less aggressive. They had more self-control. They were healthier. They lived longer" (Page 30). This study led other scientists to discover that when pups were licked and groomed, a particular DNA sequence was "turned on," which created healthy stress response functions. Further research found correlations with human brains, suggesting that childhood abuse or neglect (the lack of "licking and grooming") leaves children biologically disposed (changing their DNA) to physical and mental complications, including a higher rate of suicide. To these scientists, parental attachment (feeling secure in one's relationship with parents), is crucial to a child's later success in life.

A variety of studies has been done on parental attachment and its effects on children as they age. Generally, it was believed that once children matured past their toddler years, the damage of poor attachment was already done. It was also generally believed that parents incapable of forming healthy attachments with one child would be unlikely to form healthy attachments with other biological children. One researcher, Alicia Lieberman, sought to prove these theories wrong. Through a series of experiments, Lieberman discovered that parents can overcome histories of trauma and poor attachment making healthy attachment with their own children possible. She also discovered that children found to be "poorly attached," with the plethora of academic complications that arise from such dysfunctional relationships, can make vast improvements in their personal and academic lives after undergoing beneficial treatment, and some can even come to form healthy attachments with their parents where it previously seemed impossible. The benefits to such treatments are overwhelming, as children with secure attachments are "more likely to graduate from high school, to stay out of jail, to delay pregnancy, and to have more positive relationships with [their] own children" (Page 42).

Chapter Two: How To Build Character

Chapter Two: How To Build Character Summary and Analysis

In the mid 1990s, Yale graduate David Levin began working on a new school of teaching. Within a few years, the Knowledge is Power Program (KIPP) was born in the Bronx, New York. Levin recruited a classroom of Hispanic and black students from the worst-performing schools in New York and promised their parents a bright, academic future complete with college graduation. As the years passed, the students at KIPP performed well, far better than the students' academic histories would have led researchers to believe. When ninety percent of KIPP's flagship class left for college, many thought Levin was a hero, solving unsolvable educational problems. As time passed, however, more and more of Levin's students dropped out of college, so that by the year 2003, when 90 percent of his flagship class should have been graduating, only 47 percent succeeded. Levin was surprised to find that the students who graduated weren't necessarily his most "intelligent" students. Rather, the successful students were those who possessed positive character traits, such as optimism or determination. Around the same time, Levin read the book Learned Optimism, which perpetuates the belief that pessimistic people, for example, can train themselves to be more optimistic. The book argues that character traits are not innate - they are learned, one way or the other, and can therefore be reversed with adequate training. Levin wondered whether academic characteristics, such as success and intelligence - could also be retrained.

Many of the school comparisons use Riverdale, an upper class school in New York City, as the pinnacle of success: the majority of students who attend this school come from affluent families that can meet the children's every financial need: they have the most up-to-date technologies, the best schools, and tuition starts at $38,500 a year (and that's for pre-kindergarten). While it seems that the students at Riverdale are bred for success, their headmaster, Dominic Randolph, feels differently: "People who have an easy time of things, who get eight-hundreds on their SAT's, I worry that those people get feedback that everything they're doing is great. And I think as a result, we are actually setting them up for long-term failure" (Page 56). What ties Levin and Randolph together is their mutual belief in harnessing valuable character traits in their students, and making this quest part of academic curriculum. Both administrators turned to Angela Duckworth, an Oxford scholar who had researched the way discipline scores were higher indicators of a student's SAT score than intelligence. Duckworth had recently partnered up with Walter Michael, a professor at Stanford University who had created the infamous "Marshmallow Experiment." Essentially, this experiment, which tested delayed gratification, asked four-year-olds to sit in a room with a marshmallow. If they waited the full five minutes before devouring their marshmallow, they would be given two marshmallows as a reward. If they chose to eat their marshmallow before the time was up, they would still be able to enjoy their snack but there would be no "extra" reward. Michael studied not only the statistics of how many children were able to delay

gratification, but what techniques the children used to keep their minds off the marshmallow in the room. Duckworth then attempted to adapt Michael's findings in the classroom with the hopes that her students would be able to recognize the "delayed gratification" of graduating from high school. She was surprised to find that her efforts actually had very little results. Although her students claimed to "feel" as if they had more self-control, their test results showed otherwise.

In the 1960s, researcher Calvin Edlund measured the scores of 76 inner city children, divided into two groups (average and low intelligence), on a standard IQ test. After the first test, the children in Group 1 (low intelligence) average a score of 76. Group 2 (average intelligence) averaged a score of 116. A week later, Edlund tested them again, but this time, he offered the students in Group 1 an M&M after each correctly answered question. Group 2 received no reward. He was shocked to discover that Group 1 now averaged a score of 96, nearly erasing the gap between "low" and "average" IQ students. He realized that scores didn't measure a child's intelligence; they measured how hard the student was trying. According to Tough, educators and administrators across the country are now faced with the conundrum of how to truly motivate their students to embrace their future, particularly when students have grown up in environments that have taught them that academics are not the way to succeed. In fact some researchers, like Brent Roberts of the University of Illinois Urbana-Champagne, believe that conscientiousness (being a go-getter) is the most important human characteristic: "People high in conscientiousness get better grades in high school and college; they commit fewer crimes; and they stay married longer. They live longer - and not just because they smoke and drink less. They have fewer strokes, lower blood pressure, and lower incidents of Alzheimer's Disease" (Page 71). In academia, contentiousness seemed to encompass two main character traits: self-control and grit.

After careful consideration, Duckman, Levin, and Randolph noticed that their successful students seemed to exhibit other important character traits, and narrowed the list down to seven characteristics to focus their curriculum around: grit, self-control, zest, social intelligence, gratitude, optimism, and curiosity. Over the next year and a half, the three administrators worked tirelessly to create a questionnaire to track students' progress. Across the country, teachers have broadened this curriculum and created two distinct groups of character traits to enrich in their students: "performance character" which includes values like "effort, diligence, and perseverance," and "moral character" which includes values like "fairness, generosity, and integrity" (Page 78). There was an interesting divide, however, when they presented the new curriculum to the schools. Parents at KIPP were generally supportive of the idea of character development, while parents at Riverdale (the affluent school) couldn't comprehend how character development would help their children succeed in college. The general idea at Riverdale was that good grades and good connections were all one needed for success, while parents at KIPP, whose children didn't come from money or opportunity, immediately recognized that having good character would help give their children an edge at competitive schools. Interestingly, around the same time, other researchers were discovering "disproportionately high levels of anxiety and depression" among wealthy students, because they are more likely to grow up with emotionally distant parents who indulge their children's bad behaviors. For reasons like this, educators like Randolph

(despite the parents' objections) felt that the best way for affluent young people to develop their characters is to attempt something where there is "a real and serious possibility of failure" (Page 85).

Educators at KIPP discovered that an important skill to teach students is code-switching, or the ability to manage one's behaviors in relation to particular situations: "It's okay to be street on the street, according to the theory of code-switching, but if you're in a museum or a college interview or a nice restaurant, you need to know exactly how to act or you're going to miss out on important opportunities" (Page 89). Students at Riverdale are much better versed in code-switching than students at KIPP, which ultimately gives them an advantage in situations like job interviews or college applications. The downside, according to educators at Riverdale, to stringent behavioral rules, such as sitting up straight at one's desk or a ban on chewing gum - can have a negative effect on students' learning: At Riverdale, teachers assume students already understand appropriate manners, so if they need to sit on the floor rather than a desk, or chew gum to manage hyperactivity, that's perfectly acceptable even though it would be grounds for punishment at KIPP. At KIPP, students are taught to make a list of mental rules for themselves and to use Cognitive Behavioral Therapy (CBT) to convince themselves out of bad decisions (like chewing gum in class) and into a better decision (focusing on the lecture rather than drifting off). In a way, this therapy teaches students will-power, grit, and determination while teaching students to acknowledge their short-comings and overcome them. According to Duckworth, this method teaches students to become more virtuous - she believes that people aren't born with good manners or consciences, they choose them.

Educators at KIPP also believe that intelligence, like important character traits, is malleable. A variety of studies are explored (similar to the M&M study previously discussed) that show that students who are told they will perform poorly on particular exams (female students being told that "girls aren't good at science," for example) generally DO perform poorly. While this showcases the negative effect of stereotypes in school, Tough states the results of these studies are positive because they prove that intelligence is malleable, and that students who believe their intelligence can be improved (rather than believing they were "born" unintelligent) have a stronger work ethic, or "more grit," than students who believe intelligence is set. Yet having too much of any characteristic, even grit or determination, can also have a negative effect on students: in short, students must be taught to engage in different character traits while also tempering them. Teaching students that everything about themselves is malleable seems to be the recipe for success.

Chapter Three: How To Think

Chapter Three: How To Think Summary and Analysis

Chapter Three focuses primarily on one educator, Elizabeth Spiegel, and the way she teaches students how to play chess. This chapter fits somewhat awkwardly into the book, and includes a wide variety of chess history, technique, and important players, that don't seem to mesh with the book's main themes and messages. When working with her students, Spiegel's method is brash, and has received some criticism for the tough way she speaks with students, but she produces results. The chapter opens with Spiegel conversing with seventh-grader Sebastian Garcia about what he did wrong during his last match. After each match, Spiegel painstakingly reenacts every move on the chessboard to discuss exactly where the students made mistakes. She focuses almost solely on errors, rather than offering positive reinforcement for intelligent moves, because she doesn't believe students learn from praise. After reenacting each of Sebastian's moves, Spiegel asks him how long the move took him, and when he answers "two seconds" Spiegel shouts, "We did not bring you here so that you could spend two seconds on a move ... This is pathetic. If you continue to play like this, I'm going to withdraw you from the tournament, and you can just sit here with your head down for the rest of the weekend" (Pages 106 - 107). Although Spiegel understands that students make mistakes, she has no tolerance for students being careless, especially when they are capable of doing much, much better.

Tough was first introduced to Spiegel in 2009 when he wrote an article about her chess team for The New York Times. At first, Tough was skeptical about Spiegel's success - media loves underdog stories about inner city schools - but once he met her, he found that her success was genuine and not a one-time deal. The team was diverse (white, black, Latino, and Asian), and under Spiegel's tutelage, had won all three grade divisions in 2008, even when competing against exclusive private schools.

In 1997, British grand master Jonathan Levitt proposed a mathematical equation between IQ and chess abilities: Elo ~ (10 x IQ) + 1000. "Elo" refers to a player's tournament rating, so according to Levitt's equation, a player's Elo could never be higher than ten times his IQ + 1000. Chess grand masters have an Elo of 2500 or higher, so according to Levitt's equation, each must have an IQ of 150 or higher (which is considered a genius IQ). Other chess experts, like Spiegel, disregard Levitt's equation. As Tough watches Spiegel with her students, he sees that her educational beliefs are not dissimilar to Duckworth's since her lessons focus on two executive functions: cognitive flexibility (the ability to see alternative solutions to problems), and cognitive self-control (the ability to substitute more effective, less obvious solutions for natural reactions). Spiegel believes that focusing on these two functions helps her students with chess and with school because both functions focus on teaching students better ways to think. Focusing on student's mistakes in chess is one of the only opportunities in a student's life when they can truly only blame their loss (their mistakes) on themselves: "When they lose a chess game, they know that they have no one to

blame but themselves" (Page 116). Although Spiegel's direct (and sometimes rough) education style is oft criticized, Tough argues that when children reach adolescence, they are no longer motivated by "licking-and-grooming," but by believing in their own abilities. Although Spiegel never uses the word "character" when discussing the traits she attempts to bring out in her students, it's clear that her methods overlap those of David Levin and Dominic Rudolph. In her own way, Spiegel is teaching her chess players grit, curiosity, self-control, and optimism.

For the first few years of Spiegel's chess teaching at IS318, her students had never won individual titles (and none has surpassed an Elo of 2000), but her overall success won almost every team title. That is, until Justus Williams enrolled. Justus had started playing chess in the third grade, through a chess outreach program in the inner city school district. Immediately, teachers noticed his natural ability, and the organization managed to scrape together enough money to get Justus a private chess tutor. By the time Justus arrived at IS318, his Elo was already over 2000, and Spiegel realized this was her first (and perhaps her only) opportunity to teach a potential Grand Master. At the same time, however, Spiegel had taken a special interest in James Black, another incoming sixth-grader who had enrolled at IS318 with a rating of 1700, and whom she had coached over one year to a rating of 2100. Tough watched a match when James bested a Soviet player (rated 2546 at the time) in a mere thirty moves, an outstanding achievement for any player, let alone a seventh grader. This win bumped James' rating to 2150, putting him excitedly close to his goal of becoming a national champion (earned with a rating of 2200). Even though Justus had just become the youngest African-American national champion in the world, James, who was five months younger, had an opportunity to beat Justus' record. Unfortunately, after his exciting win, James' scores began to plateau and his birthday passed without his coveted record. For over a year, James' score ebbed and flowed, but he finally reached his goal and was rewarded with the knowledge that just a year after Justus had become the first African-American national master under fifteen there were now three under thirteen, a point of pride for the entire African-American chess playing community,

Throughout the chapter, Tough describes the single-minded determination with which many grand masters study chess, citing the Polgar family (who raised their three daughters to tirelessly study chess, and whose eldest daughter, Susan, won her first tournament at the age of four), and Gata Kamsky, who was raised in terribly Draconian conditions and forced to study chess alone (no school, no television, no friends). Although extreme, Spiegel believes that it's important for children to look back at their childhoods and remember actually being passionate about something: "The worst thing is you look back on your childhood and it's one blur of sitting in class and being bored and coming home and watching TV. At least when the kids on the chess team look back, they'll have the nationals to remember, or one great game they played, or a moment when they were full of adrenaline and trying their hardest" (Page 136). It's interesting to note that Spiegel also believes that when playing chess, it's best for players to feel pessimistic about upcoming moves rather than optimistic, because pessimism causes players to check and double-check their options for better moves, while being optimistic breeds complacency - yet another thought that easily transitions into the academic world.

The difficulty for Spiegel arose when James Black, one of her best chess players, had the opportunity to attend an elite school but needed to pass a basic education exam. Despite Spiegel's private tutelage, he failed miserably and, in the end, was not accepted into the better school. Spiegel was crushed, and the conflict left Tough wondering, what if James had invested the same energy into academics that he had in chess? What would his future be like? The public school system in Brooklyn had failed James miserably, and after his research, Tough believes that "for a student with [James'] prodigious gifts, anything seems possible - as long as there's a teacher out there who can make succeeding in school as attractive a prospect as succeeding on the chessboard" (Page 147).

Chapter Four: How To Succeed

Chapter Four: How To Succeed Summary and Analysis

In the mid-1990's, the American college graduation rate was the highest in the world. Since then, however, the rate has fallen behind other successful nations, such as the United Kingdom, Australia, Poland, Norway, and South Korea. While college graduate numbers in America have risen since the 1970's, the numbers highlight an increasingly alarming class-divide: "the rate of BA attainment among wealthy students with at least one parent who had graduated from college rose from 61 percent to 68 percent while ... the rate among ... students in the lowest income quartile whose parents were not college graduates actually fell from 11.1 percent to 9.5 percent" (Page 149). For years, educators were focused on one thing: how to encourage disadvantaged youth to graduate from high school and enroll in college. The problem seems to be that once the students are there, they aren't equipped with the skills needed to succeed. The problem is no longer college access, but college completion. This is particularly puzzling to Tough as he researches that individuals with a college degree can expect to earn 83 percent more than an individual with only a high school degree, so why are so many students dropping out of college at a time when a college degree has become increasingly valuable?

One educator, Charles Murray, argues that schools are pushing too many ill-suited students towards a college education, in a way, romanticizing education. In short, Murray believes that American schools push students to college when they are simply not smart enough to be there. This, he believes, is the reason why America has the second-highest college dropout rate in the world, second only to Italy. Further research, however, seemed to show that students from underprivileged schools (that in this argument would be thought to produce less-intelligent students) frequently choose local or community-based schools in a process called "undermatching," rather than overreaching their potential. As a result, these students are left to dwindle in programs that don't challenge them in the same way they had previously been challenged in high school, and many drop out as a result. Interestingly, Angela Duckworth - the guru of self-control and grit - found that students' GPAs rather than their standardized test scores (like SAT or ACT) were better reflectors of whether or not a student would graduate from college: college graduation, she said, requires much more self-control and conscientiousness than it does academic prowess or intelligence. Once again, the argument comes back to the value of positive character traits over academic intelligence.

Jeff Nelson was an educator in inner-Chicago who preached to his disadvantaged students about the value of college. The statistics were stacked against him: in Chicago, only eight percent of disadvantaged students go on to earn four-year degrees, and for African-American males the percentage is even smaller, around three percent. After

working for Teach for America for a few years, Nelson felt compelled to reinvent the Chicago school system, but knew he wasn't meant to be a teacher. In 2007, Nelson received a call from Matt King, a teacher at a vocational school on the South Side of Chicago. King ran a program for high schoolers teaching them how to improve their grades, research colleges, complete the application process, and succeed during their four-year college career. His program had done great work and produced great results, but he was looking for someone else to take over as executive director. Nelson quickly accepted his offer even though the program had no employees, no business plan, no office space, and only enough funds in the bank account to run for ten days. Five years later, the program is called OneGoal, and it operates with at least 15 office staff and an annual budget of $1.7 million.

OneGoal hires Chicago-based school teachers to recruit yearly classrooms of 25 students (identified as students who would otherwise likely not apply to college) and put them through a rigorous three-year training preparing them for their college experience. OneGoal operates on a three-part equation: first, students must get their GPAs and standardized test scores up high enough to be considered for college admission. Second, students must be trained in the college prep aspects of researching schools to attend and applying for appropriate scholarships. Third, students must be trained in "noncognitive academic skills including study skills, work habits, time management, help-seeking behavior, and social/academic problem-solving skills" (Page 161). Interestingly, the skills Nelson wanted the OneGoal teachers to emphasize in their classrooms were eerily similar to the characteristics emphasized at KIPP.

One student Tough focuses on throughout this chapter is Kewauna Lerma (first introduced in the introduction), a disadvantaged student from Chicago who had fought hard to apply to college. Although Kewauna's GPA during her junior year was an impressive 4.2, she had struggled during her freshman year, before being accepted into OneGoal, and was still paying the price. During her first attempt at the ACT standardized test, she scored a dismal 11 (in the lowest one percent of college applicants), and during her second attempt, only managed to bring the score up to 15. Despite this, Kewauna wanted to apply to highly selective schools like Duke and the University of Chicago. Although Tough wouldn't suggest that Kewauna is as equipped to succeed at Duke as students with higher ACT scores, he argues that if Kewauna were accepted, she would arrive on campus with invaluable skills for her success - her relentless optimism for example. Although Kewauna might not academically match other incoming college freshman, she would be equipped with character skills to quickly catch up: many incoming freshman use their first year of college to explore new freedoms and social lives. Even promising students can see slips in their grades - which is completely normal - and Nelson trains his OneGoal students to embrace other students' missteps as opportunities for their own success. While the rest of the student body is backsliding, OneGoal students are trained to continue soldiering forward, eventually closing the gap between themselves and their more privileged classmates.

Chapter Five: A Better Path

Chapter Five: A Better Path Summary and Analysis

In the book's final chapter, Tough relies on his own observations and thoughts to tie up the book's themes and messages. Tough reveals that when he was a freshman at Columbia University, the same age Kewauna Lerma is now, he dropped out. Although he's gone on to lead a successful life and have a successful career, his research for the book has raised the question time and time again: why did he choose to drop out, and if he had pushed himself harder, would he be a college graduate now? He had felt somewhat out of place after moving to New York and always had an academically rebellious side, but at the heart of his decision, he realized, was a deep desire to do "something uncertain, unsafe; something I didn't know if I could succeed at" (Page 178). Through his research, Tough found a lot of similarities between his own story and that of Steve Jobs, CEO of Apple. Jobs, who called dropping out of college "one of the best decisions I ever made," praised taking time off to focus on one's true interests, not slogging away completing educational requirements.

Since writing the book, however, Tough spends a lot less time considering his own success and more time considering the future success of his young son, Ellington. Before he began his research, Tough feared that Ellington would be doomed to failure if he wasn't inundated with Baby Einstein products and foreign language flashcards from the moment he emerged from his mother's womb. But Tough's research has shown him that character development is far more important to Ellington's future success than his educational development. Since reading about the LG rat dams licking and grooming their stressed-out pups, Tough has sought out ways to incorporate these grooming behaviors in his own home: the LG dams weren't constantly licking and grooming their pups, they only did so when their pups were stressed and in need of comfort. Yet despite this valuable lesson on parenting, the rest of Tough's work has taught him that giving a child some adversity to overcome is just as valuable as teaching them that they are safe and secure. Without overcoming adversity, children will never develop the character traits Tough believes are needed for future success: "I know that it is just the beginning of the long struggle we will face, as all parents do, between our urge to provide everything for our child, to protect him from all harm, and our knowledge that if we really want him to succeed, we need to first let him fail. Or more precisely, we need to help him learn to manage failure" (Page 183).

Tough is troubled by statistics suggesting that over half of Princeton graduates take jobs in finance and management consulting, two jobs with high pay but low rates of satisfaction. While struggles with character development may produce a somewhat uninspired generation of middle-upper class workers, character struggles can produce catastrophic results for lower-class students: jail, government benefits, addiction, or worse. Tough is particularly concerned because over the past fifty years, since the War on Poverty, the poverty rate has remained roughly the same, but child poverty has grown over five percent, which means that between a fifth and a quarter of America's

children are living in poverty. Over the past fifty years, the government has funded a plethora of programs to help reduce the numbers in child poverty - welfare payments, housing subsidies, Head Start education programs, and better community policing - but for the most part, the lives of children living in poverty aren't getting any better, particularly in school. Since realizing that the best way to secure a better future for impoverished children is education, the government has turned its attention away from poverty reform, to education reform. Unfortunately, the government seems unable to find, or fund, an effective reform, although they have tested many different plans. In this final chapter, Tough puts journalistic integrity aside and inserts his personal opinion, one with which he has been leading the reader to agree since the first pages: the trouble with education is the teachers. There is a serious problem with education when the most at-risk students are placed with the lowest-performing teachers, while the best and brightest teachers accept high-paying tenures at private schools like Riverdale.

Although Tough makes his opinion clear, he acknowledges that bad teachers are only part of the larger question: "What can we as a country do to significantly improve the life chances of millions of poor children?" While great strides have been made to help children at the top of the poverty scale (where the average yearly income for a family of four is $41,000), very little has been done for deeply impoverished children at the bottom of the scale (where the average yearly income for a family of four is $11,000). Children at the bottom of the scale are at higher risk for everything, from child abuse to teenage pregnancy to drug addiction, simply because these students are more likely to have high ACE scores and less likely to have formed secure attachment relationships. Through his research, Tough believes that programs like OneGoal, KIPP Through College, and other character-building interventions, are the best way to ensure a bright future for all of America's students, students like Kewauna Lerma and James Black. At the end of the day, to Tough, character matters, and students can't improve on their own: "The character strengths that matter so much to young people's success are not innate; they don't appear in us magically, as a result of good luck or good genes. And they are not simply a choice. They are rooted in brain chemistry, and they are molded, in measurable and predictable ways, by the environment in which children grow up" (Page 196). In a somewhat pithy ending, Tough argues that teachers, not necessarily students, hold the future in their hands, and it's their obligation to help students create their best and brightest future.

Characters

Nadine Burke Harris

Nadine Burke Harris is the daughter of wealthy Jamaican immigrants raised in a well-off, mostly white neighborhood in San Francisco. Burke Harris became a pediatrician and opened a clinic in one of the poorest neighborhoods in San Francisco administering free immunizations. Although she enjoyed her work, Burke Harris was troubled by the number of traumatized children she saw in her clinic, and so she began work on ACE scores in the hopes of bettering the lifetime prospects of children in her neighborhood.

Elizabeth Dozier

Elizabeth Dozier is the unlikely product of an illicit relationship between a nun and a prison inmate, raised on her mother's meager sole income in Chicago. In her quest to give back to her troubled community, Dozier became an educator, and as part of President Bush's "No Child Left Behind" policy, took over as principal of Fenger High School. During the time of Tough's research for this book, Dozier had implemented a "zero tolerance" policy for violence at Fenger, and had enrolled some of her most troubled students in the Youth Advocate (YAP) program at her school.

David Levin

David Levin is the founder of the Knowledge Is Power Program (KIPP) in the Bronx, New York. At KIPP, students are taught that character development is just as important to their future success as academic skills. This means that Levin and his team construct curriculum to mentor students' character growth as well as their academic skills.

Dominic Rudolph

Dominic Rudolph is the headmaster of Riverdale School in New York City. Riverdale serves primarily children of affluent families, and as a result, the children are groomed in social skills and "character" from an early age. Rudolph, however, advocates for students with distant parents who often indulge their children's poor behaviors.

Elizabeth Spiegel

Elizabeth Spiegel is a thirty-year-old chess teacher from Brooklyn, who is characterized by focusing primarily on her students' mistakes rather than their clever moves.

Justus Williams

Justus Williams is a student of Elizabeth Spiegel, and while only in seventh grade, became the youngest African-American national chess champion.

Charles Murray

Charles Murray is the educator and writer who believes that America over-romanticizes education. He believes American schools push too many students towards college when they are simply not smart enough to be there. This, he believes, is the reason why America has the second-highest college dropout rate in the world.

Jeff Nelson

Jeff Nelson is the Chicago-based educator who took over the role of executive director of OneGoal after realizing he wanted to change the public school system but was not called to be a teacher. OneGoal identifies annual classrooms of twenty-five high-risk students who wouldn't otherwise have a shot at college, and prepares them for an academic collegiate career using a three-part equation: academic catch-up, college prep, and noncognitive academic skills.

Michele Stefl

Michele Stefl is one of the first teachers Nelson hired to work at OneGoal. Stefl is not an academic romantic; rather, she is plainspoken and honest with her students about the imbalance of education in America. Although she speaks the blunt truth, Stefl believes that students' personalities, intelligence, even their destinies are completely malleable.

Kewauna Lerma

Kewauna Lerma is one of the students enrolled in Nelson's OneGoal program in Chicago. While in the program, Kewauna managed to complete her junior year of high school with an impressive 4.2 GPA, although she received dismal results on her ACT exam. Regardless, Kewauna ambitiously hoped to apply to highly selective colleges, like Duke. Tough argues that students like Kewauna are equipped with valuable skills, like optimism, that would only benefit her academic career if she would be accepted into such competitive schools.

Objects/Places

Tools of the Mind

Tools of the Mind is the pre-kindergarten Tough visits during the book's introduction. Here, young students are taught behavioral skills rather than academic information to help prepare them for elementary education. Students are taught how to control their impulses, stay focused, avoid distractions, manage their emotions, and organize their thoughts.

Christian Fenger High School

Christian Fenger High School is a high school in Chicago that is often named as one of the worst schools in America. While many troubled schools in the United States must beg for funding, Fender's status as one of the worst schools in America has intrigued educators for many years, and as a result, Fenger has been the focus of repeated ambitious and well-financed reforms, most of which show little to no result.

Adverse Childhood Experiences (ACE)

Adverse Childhood Experiences (ACE) is a number given to medical patients to notate how many traumatic childhood experiences, such as physical or sexual abuse, parental divorce, familial addiction, and other similar factors affected their childhoods. Scientists were shocked to find that "the higher the ACE score, the worse the outcome on almost every measure from addictive behavior to chronic disease" (Page 10).

Youth Advocate Program (YAP)

Youth Advocate Program (YAP) is an intensive after school program at Fenger created to help keep the most troubled students off the streets, and to give them a shot at having a successful adulthood. Students in YAP are assigned mentors to help them prepare for, apply to, and graduate college. Rather than just preparing students for entrance exams and SAT scores, YAP mentors make contact with college-bound students weekly until those students successfully graduate from college.

Knowledge Is Power Program (KIPP)

Knowledge Is Power Program (KIPP) is the new, immersive style of schooling started by David Levin in the Bronx, New York in 1998. KIPP was one of the first schools to embrace "character development" as being equally important to academics.

Cognitive Behavioral Therapy (CBT)

Cognitive Behavioral Therapy (CBT) is the ability to recognize potentially inappropriate or self-destructive thoughts and actions, and convince yourself (either in your mind or by speaking aloud) into a better decision.

Dual-Purpose Instruction

Dual-Purpose Instruction is the belief that teachers should work on students' academic growth as well as their character development. Dual-Purpose Instruction believes that intelligence, as well as character, are malleable, so teachers deliberately discuss character strengths in every lesson.

Intermediate School 318

Intermediate School 318 is the school in Brooklyn, New York where Elizabeth Spiegel works as the chess teacher. Under her tutelage, IS318 won all three grade levels in 2008, even when competing against much more privileged, exclusive private schools. Spiegel has been criticized for her harsh approach to students - making them reenact every match and vocalizing her criticisms of poor moves - but it's clear that her methods produce results.

Cognitive Flexibility

Cognitive Flexibility is "the ability to see alternative solutions to problems, to think outside the box, to negotiate unfamiliar situations" (Page 114). This skill is highlighted in the chapter about Elizabeth Spiegel and her chess players, but is an effective character trait to develop in all students.

Cognitive Self Control

Cognitive Self-Control is the ability to substitute more effective, and perhaps less obvious, solutions to problems rather than relying on one's natural reactions. This skill is highlighted in the chapter about Elizabeth Spiegel and her chess players, but is an effective character trait to develop in all students.

OneGoal

OneGoal is the college preparatory program run by Jeff Nelson in inner-city Chicago. OneGoal identifies annual classrooms of 25 high risk students who wouldn't otherwise have a shot at college, and prepares them for an academic collegiate career using a three-part equation: first, students must get their GPAs and standardized test scores up high enough to be considered for college admission. Second, students must be trained

in college prep skills of researching schools to attend and applying for appropriate scholarships. Third, students must be trained in "noncognitive academic skills including study skills, work habits, time management, help-seeking behavior, and social/academic problem-solving skills" (Page 161).

Themes

Character Versus Intelligence

The main issue at the core of Tough's book is the question of whether character development or intelligence is more important in indicating a student's future success. Although Tough attempts to maintain a balanced argument, it's clear that in his opinion and for disadvantaged students in particular, being taught the six positive character traits - grit, self-control, zest, social intelligence, gratitude, optimism, and curiosity - is the key to success. Tough's opinion about character and intelligence is relatively new in the education reform community, so he chocks his book full of studies that prove the value of character development. Time and time again, Tough proves that while disadvantaged students, like Kewauna Lerma, may be lacking in academic intelligence, they make up for their shortcomings with positive character traits, like grit and optimism, that balance out success rates in college. Although Kewauna might not academically match other incoming college freshman, she would be equipped with character skills to quickly catch up. Preparation programs like KIPP, OneGoal, and YAP help prepare at-risk students for the tough road ahead at college. Tough sings the praises of early education programs, like Tools of the Mind, that focus on character development at an early age rather than cognitive development. Through every interview, every study, every bit of research, Tough underscores his message that every part of a student's identity, from their character traits to their intelligence, is completely malleable should they be lucky enough to find a teacher willing to spend the time to train them for success.

The Importance of Education

Perhaps the most resounding message of How Children Succeed is the assertion that education is the most important vehicle for an individual's success, particularly in America. For years, educators were focused on one thing: how to encourage disadvantaged youth to graduate from high school and enroll in college. The problem seems to be that once the students are there, they aren't equipped with the skills needed to succeed. The problem is no longer college access, but college completion. This is particularly puzzling to Tough as he researches that individuals with a college degree can expect to earn 83 percent more than an individual with only a high school degree, so why are so many students dropping out of college at a time when a college degree has become increasingly valuable? Education appears to be one of the best ways to ensure individuals will live healthy lives, both emotionally and physically, since it reduces their likelihood of teenage pregnancy, imprisonment, involvement in gang violence, and dependency on government benefits. Therefore, Tough believes it is imperative that students are taught not only how to excel in high school, but how to succeed in (and graduate) college.

The Benefits of Mothering / Mentoring

One of the most important elements of a child's upbringing, which leads to success later in life, is forming securely bonded attachments to their parents or caregivers. In the lab rat experiment, scientist Michael Meaney noticed that when rat pups were removed from their pens for inspection, some of the mothers (dams) licked and groomed the pups when they were returned, while some of the dams ignored their pups completely. Over time, Meaney discovered that pups that had been licked and groomed "were better at mazes. They were more social. They were more curious. They were less aggressive. They had more self-control. They were healthier. They lived longer" (Page 30). Further research found correlations with human brains, suggesting that childhood abuse or neglect (the lack of "licking and grooming") leaves children biologically disposed (changing their DNA) to physical and mental complications, including a higher rate of suicide. To these scientists, parental attachment (feeling secure in one's relationship with parents), is crucial to a child's later success in life. A variety of studies has been done on parental attachment and its effects on children as they age. Researcher Alicia Lieberman discovered that parents can overcome histories of trauma and poor attachment making healthy attachment with their own children possible. She also discovered that children found to be "poorly attached," with the plethora of academic complications that arise from such dysfunctional relationships, can make vast improvements in their personal and academic lives after undergoing beneficial treatment, and some can even come to form healthy attachments with their parents where it previously seemed impossible. The benefits to such treatments are overwhelming, since children with secure attachments are "more likely to graduate from high school, to stay out of jail, to delay pregnancy, and to have more positive relationships with [their] own children" (Page 42).

Style

Perspective

How Children Succeed is written by Paul Tough, an author who has dedicated his professional life to researching education and child development. His particular interests while working for The New Yorker and The New York Times have been childhood and character, which essentially led him to composing this book. Throughout the book, Tough mentions meeting teachers, educators, and students while working on other projects, which at times can make this book feel like an anthology of past projects rather than a cohesive, single-minded work. It's clear that through his years of research, Tough has formed strong relationships with many of the students, like Kewauna Lerma, and these personal relationships may have influenced his professional approach. It is difficult for Tough to view these students as statistics, which would allow him to analyze their histories objectively, rather than complicated human beings whom he must view subjectively. The fact that Tough has recently become a father also influences his perspective during his research. In Chapter Five he says, "These days, when I contemplate success and failure, I think less frequently about my own prospects and more often about those of my son, Ellington" (Page 181). Again, it is impossible for Tough to view his subjects objectively - he also sees them through the eyes of a father, the eyes of a father who hopes to justify his parental decisions and give his son the best future possible.

Tone

Overall, Tough's tone is friendly, educational, and accessible. It's clear that Tough is well educated and that his book is well researched. Although engaging and easy to follow, many passages of the book, particularly those that rely on research, are quite academic and may be alienating for some readers. Through Tough's tone, it's clear that his target audience is teachers, educators, and reformers who will be privy to the lingo. Parents and students will still enjoy the book, but may, at times, feel like they are reading a textbook. Given Tough's professional history of writing for The New Yorker and The New York Times, his writing style is geared toward middle-upper class, educated readers.

Tough uses all of his subjects' real names, making them easy to locate on Google. It is interesting to note that Elizabeth Spiegel, for example, is not thrilled with her representation as the aggressive chess coach in the book, although she is also unhappy with her representation as "too nice" in the 2012 documentary Kings of Brooklyn. This conflict of character is important to remember when considering Tough's representations of all his subjects. Like any good nonfiction writer, he has cherry-picked characteristics to match his message and themes, so the representations may not be entirely honest or fully representative of the truth. Although impactful, this highlights Tough's partiality.

Structure

How Children Succeed begins with an introduction and is then divided into five chapters, each focusing on a different element of character development and educational success. Within each chapter, Tough divides his thoughts, research, and analysis into numbered sub-chapters, each a few pages in length. These short chunks break down thick academic thoughts, making the information more digestible. Because of the academic nature of this book, the chapters could be read in any order and don't necessarily rise or fall in action.

In the introduction, Tough discusses his desire to write the book, his motivations for researching education reform, and introduces the reader to a handful of important people, like Kewauna Lerma, who will reoccur to underscore messages and themes throughout the book. He poses a variety of questions about education reform and poverty that he will seek to answer throughout the rest of the book. The first four chapters, "How to Fail (And How Not To)," "How to Build Character," "How to Think," and "How to Succeed," each focus on a different element of character development and education reform, while the book's final chapter, "A Better Path," sums up Tough's closing thoughts. The final chapter returns to the conversational style of the introduction, and again returns to Tough's views of himself as an academic, a mentor, and a father.

Quotes

"Ellington would be growing up in a culture saturated with an idea you might call the cognitive hypothesis: the belief, rarely expressed aloud but commonly held nonetheless, that success today depends primarily on cognitive skills ... and that the best way to develop these skills is to practice them as much as possible, beginning as early as possible" (Page xiii).

"In neighborhoods like Bayview - Hunter's Point and Roseland, many of the problems we generally think of as social issues - the province of economists and sociologists - are actually best analyzed and addressed on the molecular level, down deep in the realm of human biology" (Page 9).

"Children who grow up in stressful environments generally find it harder to concentrate, harder to sit still, harder to rebound from disappointment, and harder to follow directions. And that has a direct effect on their performance in school" (Page 17).

"When we look at these kids and their behavior, it can all seem so mysterious ... but at some point, what you're seeing is just a complex series of chemical reactions. It's the folding of a protein or the activation of a neuron. And what's exciting about that is that those things are treatable. When you get down to the molecules, you realize, that's where the healing lies. That's where you're discovering a solution" (Page 26).

"Our kids don't put up with a lot of suffering. They don't have a threshold for it. They're protected against it quite a bit. And when they do get uncomfortable. We hear from their parents" (Page 84).

"It's okay to be street on the street, according to the theory of code-switching, but if you're in a museum or a college interview or a nice restaurant, you need to know exactly how to act or you're going to miss out on important opportunities" (Page 89).

"If you're going to be a good teacher, you have to believe in malleable intelligence ... and character is equally malleable. If you teach kids to pay attention to character, then their character will transform" (Page 98).

"When it comes to ambition ... it is crucial to distinguish between 'wanting' something and 'choosing it'" (Page 130).

"As long as it remains taboo to acknowledge that college is intellectually too demanding for most young people, we will continue to create crazily unrealistic expectation among the next generation" (Page 167).

"I know that it is just the beginning of the long struggle we will face, as all parents do, between our urge to provide everything for our child, to protect him from all harm, and our knowledge that if we really want him to succeed, we need to first let him fail. Or more precisely, we need to help him learn to manage failure" (Page 183).

"If we can help poor children improve their academic skills and academic outcomes, they can escape the cycle of poverty by virtue of their own abilities and without additional handouts or set-asides" (Page 188).

"The character strengths that matter so much to young people's success are not innate; they don't appear in us magically, as a result of good luck or good genes. And they are not simply a choice. They are rooted in brain chemistry, and they are molded, in measurable and predictable ways, by the environment in which children grow up" (Page 196).

Topics for Discussion

Which do you think is more important to a student's success, their character or their IQ? What argument does the book make for each of these elements' importance, and the value they bring to a student's success? Be sure to include examples from the text to help strengthen your arguments.

Who do you think is responsible for a student's academic success, the parents, the teachers, or the students themselves? Who does Tough think is responsible? How can you tell? Be sure to include examples from the text to help strengthen your arguments.

According to the many studies presented in Chapter One, how does stress affect an individual's life? How does stress particularly affect at-risk students, both biologically and academically? What correlations can be found between one's stress level as a child (ACE scores) and future success? Be sure to include examples from the text to help strengthen your arguments.

Describe the findings of the lab rat study involving licking and grooming. How does this study relate to academia? Do you agree with Tough's assertions about the impact of licking and grooming in a child's life? Why or why not? Be sure to include examples from the text to help strengthen your arguments.

Based on her representation in the book, do you think Elizabeth Spiegel is a good teacher? Why or why not? How does her teaching style compare / contrast to that of other model teachers in the book? Be sure to include examples from the text to help strengthen your arguments.

Why are programs like OneGoal, KIPP Through College, and YAP needed? How is each program unique, and what impact does each have on its community? Be sure to include examples from the text to help strengthen your arguments.

After reading the book, what kind of academic environment do you think Ellington Tough will grow up in? How has Tough altered his parenting style based on his research, and what do you think he still must do to ensure Ellington's future success? Be sure to include examples from the text to help strengthen your arguments.