

Sample Student

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English I, Period 2A

7 May 2013

### Fight for Your Z's

We live in an extremely fast-paced society. Vehicles weave in and out of other cars in a type of metaphorical competition, finding the perfect position to get to desired locations as fast as possible. The same drivers of these cars also have technology at their fingertips, and are able to check the latest news, a child's academic progress in a class, or navigation to out-of-town office meetings with the click of a finger. All seems well and easy with such commodities within our close grasp, but as this society continues to speed and find ways to accomplish more and more and even more in one given day, people are sacrificing one of the most important aspects of their health and life: sleep. Initially, a lack of sleep over a few days does not seem to wreak havoc on one's overall well-being, and in fact, may seem to allow for more opportunities to go places, get oh-so-important things accomplished, and spend time with more and more people, accomplishing all such activities with just a little increase in yawning and temporary brain fog. What most people do not realize, however, is that over time, a habitual pattern of a reduction in sleep can result in detrimental effects, effects that can be serious as well as destructive to our health for the long haul. **Even though many Americans believe that we can accomplish more for ourselves and others with less sleep, it is important to get at least eight hours of sleep a night, as it aids in mental health, helps keep our metabolism and productivity strong, and allows our bodies enough time to go through all sleep cycle stages necessary to be at our peak optimal health.**

The first major reason that we should strive to have eight hours of sleep a night is because our capacity to be happy and calm has a direct correlation to the number of hours we sleep. Our society is not well known for having entirely happy people 100 percent of the time.

In fact, according to the American Foundation for suicide prevention, suicides continue to be on the rise each year, and in 2013, 41,149 people had reported to have committed suicide, making suicide a leading type of death in America (“Facts and Figures”). This is not only sad, it is alarming, and it is baffling that, despite the fact that many suicides can be prevented simply by getting more sleep, few people are taking adequate personal action on this issue. Not only is depression-led suicide rampant in America, but increased psychological disorders, such as bipolar I and II, schizoaffective disorder, schizophrenia, multiple personality disorder, anorexia nervosa, and social anxiety disorder, to name just a few, have also increased. What is significant about this is that the connection between such psychological disorders and the amount and quality of sleep an individual receives is uncanny. According to Daniel J. Buysse, a professor, researcher and medical doctor at the University-Pittsburgh Medical Center, “factors relating to anxiety and stress are one of the most important concomitants [results of] sleep complaints in the general population” (Buysse 1). He goes on to say that “sleep quality disturbances are frequently reported in essentially all psychiatric disorders, including depression, schizophrenia, anxiety disorders, and psychoactive substance abuse disorders” (Buysse 2). In other words, a lack of sleep truly does correlate directly with psychological disorders and may even cause their initial outbreak. Buysse’s research was conducted in 1988, and since then, psychological medicine has only verified this direct parallel even further. Receiving eight hours of sleep, on the other hand, can reverse the adverse psychological effects of our daily stressors, and sleep is, indeed, “where the body and mind [are] repaired, reordered, and ready for the new

day” (Dillan 1). Our body needs to be able to go through different stages of the sleep cycle (called circadian rhythm) in order for our body and mind to be fully rested and repaired. Without a full eight hours, our sleep cycle is cut short, not reaching the deepest sleep—the REM, or rapid eye movement, cycle—and we set ourselves up for anxiety disorders, depression, and in some rare but serious and tragic cases, even suicide. We should strive for our full eight hours, simply because we all have an innate desire to be happy, and to share our happiness and our unique crafting and abilities with others; a lack of sleep does not make this possible. CS

Another significant reason we should strive to have a full eight hours of sleep a night is that adequate and restful sleep helps our metabolism to remain strong. When most people think of the word “metabolism,” thoughts are immediately drawn to one’s ability to wolf down five hamburgers and not gain an ounce. However, a human being’s metabolism is much more complex, and includes all chemical processes in a biological body that help sustain our life and give us energy. Sleep comes into play with our metabolisms in its ability to break down harmful free radicals built up through our food and activity (or lack thereof) during the day. During the first part of our sleep cycle, called NREM or non-rapid-eye movement, the “lower metabolic rate and brain temperature . . . seem to provide an opportunity to deal with the damage done during awake and metabolically active period” (Sharma and Kuvura). Moreover, glucose use (which breaks down sugars in our body, and thereby keeps us more energetic and slim), occurs in more awake initial stages of sleep as well as during the REM cycle, the heavier, latter half of our sleep. If we skimp on sleep, we skimp on our ability to break down sugars in our sleep, and instead, we end up large, lazy, and lethargic. Not only this, but cortisol, dubbed the “stress hormone,” as increased levels lead to an decrease in our ability to handle stress, increases with a lack of sleep, and can be found in heavier production in our bodies as early as the evening following one night

of sleep reduction (Leproult 1). This is dangerous, not only in that we become a more stressed society when we sleep less, but because an increase of cortisol almost always adds weight gain in and around the stomach area, a danger zone if we wish to keep our hearts healthy and prevent heart disease and early onsets of heart attacks. The ironic simplicity is that much of our metabolic complications, however, can be prevented if we simply sleep for our full eight hours.

Eight hours of sleep may seem like an arbitrary number, but in fact, the hours of sleep each person needs per age group has a scientifically ordered connection. As previously alluded to, our bodies go through a series of sleep cycles each night, and, depending on our age, our bodies take varied amounts of time to get through each cycle adequately. According to the Sleep Health Foundation, an newer medical and scientifically-based organization that has done extensive research on an individual's sleep needs and the various effects of sleep, infants require 12 to 15 hours of sleep, elementary school-aged children 9 to 11 hours, teenagers 8 to 10 hours, and adults 7 to 9 hours in order to complete all necessary—and full—cycles of sleep (“Sleep Needs”). The two major types of sleep, Non-REM and REM, are more detailed and complex themselves. Non-REM sleep consists of a transition into sleep, usually lasting about five minutes; light sleep in which the heart rate slows down, body temperature lowers, and eye movement reduces, usually lasting about 20-25 minutes; and deep sleep, in which one is not woken easily and if he or she is, grogginess results, with varying ranges of duration per age (Smith, Robinson, and Segal 1). REM sleep occurs after the three cycles of non-REM sleep have taken place, and is the deepest form of sleep. This is the stage in which dreams take place, breathing shallows, and heart rate and blood pressure increase. Interestingly, REM does not take up most of the night and, in fact, the body cycles through all four stages, with REM reaching a peak for a shorter amount of time than non-REM cycles, sometimes reaching the REM cycle four

or five times, contributing to the best rest possible (Smith, Robinson, and Segal). If the body simply goes through one or two successions of these sleep stages, the body has not had the ability to reach the optimal amount of deep, REM sleep required, and the individual suffers as a result. Eight hours fits most teenage and adult needs, and thus, the seemingly arbitrary number is aptly chosen. For anyone, it is incredibly important to know one's scientifically-researched sleep needs and make sure that adequate sleep is obtained.

Despite such valid arguments and evidence to show that we should make every effort to obtain adequate sleep, many busy Americans would argue that we can survive "just fine" on less. According to a 2014 Gallup Poll, only 34 percent of American adults are getting eight hours or more of sleep a night, a figure that is down 25 percent since 1942 when the poll was first taken. Some individuals choose less sleep to partake in more hobbies, some work strenuous, long-hour jobs and then come home to a family to attend to, some have busied their schedules with a "rat-race" mentality and keep adding more and more to their metaphorical plate, and some are stuck in a vicious cycle of stress (often initially caused by sleep deprivation), or spend too much time with "blue light" from electronics, which reduces one's ability to fall asleep quickly and have the best rest possible. Regardless of the reasons, such activities and mindsets are very seldom relinquished, and those who partake in them claim that they still feel just as happy and fulfilled being able to fulfill all of their wishes and desires on less sleep. However, for the vast majority of Americans, this truly is not the case. According to UC San Francisco researchers, less than 3 percent of the population has the proper genes to survive healthfully on less sleep. In fact, this 3 percent anomaly is due to a genetic *mutation*, or an abnormality in an already-existing gene "called DEC2, which governs cell production and circadian rhythm, among other things" (Weise 1). In some cases, the odds of actually having this type of genetic mutation are less than being

selected for tribute in the fictional *Hunger Games* (Arbesman 1). Thus, the argument that we can and are doing “just fine” on less than recommended sleep is completely absurd, as it would only apply to roughly 8,000 Americans today, 70 percent less than those who currently have cancer—another type of genetic mutation—in this country (“Cancer Facts”). Sleep is absolutely necessary and the argument that we can skimp on it is invalid.

Because the argument that people can survive well on less sleep is faulty, it is crucial for adults to get at least hours of sleep a night, optimizing their mental health, energy levels, and overall well-being. Without adequate sleep, our psychological status begins to break down, rendering us more susceptible to stress and depression. Additionally—and *ironically*—we begin to lose our ability to be productive as our energy levels wane and chemical workings, including how fast we turn food over into energy, how fast we get information to our brain, and even how well our hearts work, begins to dissipate. For these reasons, we should make every effort to not prioritize our temptingly fun hobbies and pridefully-based busy schedules, but to simplify our lives to make time for one of the most important aspects *of* life: sleep. This means turning our electronics off a few hours before bedtime, so that they do not interfere with our circadian rhythm, minimizing wasted time if our schedules are indeed busy, purchasing ear plugs if we are distracted by noise, exercising enough to be tired, not wired, and doing all things possible to achieve those eight precious hours. Of course, we will all run into rare nights in which sleep is diminished, whether by choice or restless sleeping, but our very happiness, livelihood, and well-being are clearly dependent on our ability to rest our heads on our pillows and get our coveted Z’s. Our Z’s, indeed, are worth fighting for.

