

SuperBetter: A Healing Game by ted.com

I'm a gamer, so I like to have goals. I like special missions and secret objectives. So here's my special mission for this talk: I'm going to try to increase the life span of every single person in this room by seven and a half minutes. Literally, you will live seven and a half minutes longer than you would have otherwise, just because you watched this talk.

Some of you are looking a little bit skeptical. That's okay, because check it out -- I have math to prove that it is possible. It won't make much sense now. I'll explain it all later, just pay attention to the number at the bottom: +7.68245837 minutes. That will be my gift to you if I'm successful in my mission.

Now, you have a secret mission too. Your mission is to figure out how you want to spend your extra seven and a half minutes. And I think you should do something unusual with them, because these are bonus minutes. You weren't going to have them anyway.

Now, because I'm a game designer, you might be thinking to yourself, I know what she wants us to do with those minutes, she wants us to spend them playing games. Now this is a totally reasonable assumption, given that I have made quite a habit of encouraging people to spend more time playing games. For example, in my first TED Talk, I did propose that we should spend 21 billion hours a week, as a planet, playing video games.

Now, 21 billion hours, it's a lot of time. It's so much time, in fact, that the number one unsolicited comment that I have heard from people all over the world since I gave that talk, is this: Jane, games are great and all, but on your deathbed, are you really going to wish you spent more time playing Angry Birds?

(Laughter)

This idea is so pervasive -- that games are a waste of time that we will come to regret -- that I hear it literally everywhere I go. For example, true story: Just a few weeks ago, this cab driver, upon finding out that a friend and I were in town for a game developers' conference, turned around and said -- and I quote -- "I hate games. Waste of life. Imagine getting to the end of your life and regretting all that time."

Now, I want to take this problem seriously. I want games to be a force for good in the world. I don't want gamers to regret the time they spent playing, time that I encouraged them to spend. So I have been thinking about this question a lot lately. When

we're on our deathbeds, will we regret the time we spent playing games?

Now, this may surprise you, but it turns out there is actually some scientific research on this question. It's true. Hospice workers, the people who take care of us at the end of our lives, recently issued a report on the most frequently expressed regrets that people say when they are literally on their deathbeds. And that's what I want to share with you today -- the top five regrets of the dying.

Number one: I wish I hadn't worked so hard. Number two: I wish I had stayed in touch with my friends. Number three: I wish I had let myself be happier. Number four: I wish I'd had the courage to express my true self. And number five: I wish I'd lived a life true to my dreams, instead of what others expected of me.

Now, as far as I know, no one ever told one of the hospice workers, "I wish I'd spent more time playing video games," but when I hear these top five regrets of the dying, I can't help but hear five deep human cravings that games actually help us fulfill.

For example, I wish I hadn't worked so hard. For many people, this means, I wish I'd spent more time with my family, with my kids when they were growing up. Well, we know that playing games together has tremendous family benefits. A recent study from Brigham Young University School of Family Life reported that parents who spend more time playing video games with their kids have much stronger real-life relationships with them.

"I wish I'd stayed in touch with my friends." Hundreds of millions of people use social games like FarmVille or Words With Friends to stay in daily contact with real-life friends and family. A recent study from the University of Michigan showed that these games are incredibly powerful relationship-management tools. They help us stay connected with people in our social network that we would otherwise grow distant from, if we weren't playing games together.

"I wish I'd let myself be happier." Well, here I can't help but think of the groundbreaking clinical trials recently conducted at East Carolina University that showed that online games can outperform pharmaceuticals for treating clinical anxiety and depression. Just 30 minutes of online game play a day was enough to create dramatic boosts in mood and long-term increases in happiness.

"I wish I'd had the courage to express my true self." Well, avatars are a way to express our true selves, our most heroic, idealized version of who we might become. You can see that in this alter ego portrait by Robbie Cooper of a gamer with his avatar. And Stanford University has been doing research for five years now to document how playing a game with an idealized avatar changes how we think and act in real life, making us more courageous, more ambitious, more committed to our goals.

"I wish I'd led a life true to my dreams, and not what others expected of me." Are games doing this yet? I'm not sure, so I've left a Super Mario question mark. We're going to come back to this one.

But in the meantime, perhaps you're wondering, who is this game designer to be talking to us about deathbed regrets? And it's true, I've never worked in a hospice, I've never been on my deathbed. But recently I did spend three months in bed, wanting to die. Really wanting to die.

Now let me tell you that story. It started two years ago, when I hit my head and got a concussion. The concussion didn't heal properly, and after 30 days, I was left with symptoms like nonstop headaches, nausea, vertigo, memory loss, mental fog. My doctor told me that in order to heal my brain, I had to rest it. So I had to avoid everything that triggered my symptoms. For me that meant no reading, no writing, no video games, no work or email, no running, no alcohol, no caffeine. In other words -- and I think you see where this is going -- no reason to live.

(Laughter)

Of course it's meant to be funny, but in all seriousness, suicidal ideation is quite common with traumatic brain injuries. It happens to one in three, and it happened to me. My brain started telling me, "Jane, you want to die." It said, "You're never going to get better." It said, "The pain will never end."

And these voices became so persistent and so persuasive that I started to legitimately fear for my life, which is the time that I said to myself after 34 days -- and I will never forget this moment -- I said, "I am either going to kill myself or I'm going to turn this into a game."

Now, why a game? I knew from researching the psychology of games for more than a decade that when we play a game -- and this is in the scientific literature -- we tackle tough challenges with more creativity, more determination, more optimism, and we're more likely to reach out to others for help. I wanted to bring these gamer traits to my real-life challenge, so I created a role-playing recovery game called Jane the Concussion Slayer.

Now this became my new secret identity, and the first thing I did as a slayer was call my twin sister -- I have an identical twin sister named Kelly -- and tell her, "I'm playing a game to heal my brain, and I want you to play with me." This was an easier way to ask for help.

She became my first ally in the game, my husband Kiyash joined next, and together we identified and battled the bad guys. Now this was anything that could trigger my symptoms and therefore slow down the healing process, things like bright lights and crowded spaces. We also collected and activated power-ups. This was anything I could do on even my worst day to feel just a little bit good, just a little bit productive. Things like cuddling my dog for 10 minutes, or getting out of bed and walking around the block just once.

Now the game was that simple: Adopt a secret identity, recruit your allies, battle the bad guys, activate the power-ups. But even with a game so simple, within just a couple days of starting to play, that fog of depression and anxiety went away. It just vanished. It felt like a miracle. Now it wasn't a miracle cure for the headaches or the cognitive symptoms. That lasted for more than a year, and it was the hardest year of my life by far. But even when I still had the symptoms, even while I was still in pain, I stopped suffering.

Now what happened next with the game surprised me. I put up some blog posts and videos online, explaining how to play. But not everybody has a concussion, obviously, not everyone wants to be "the slayer," so I renamed the game SuperBetter.

And soon, I started hearing from people all over the world who were adopting their own

secret identity, recruiting their own allies, and they were getting "super better," facing challenges like cancer and chronic pain, depression and Crohn's disease. Even people were playing it for terminal diagnoses like ALS. And I could tell from their messages and their videos that the game was helping them in the same ways that it helped me. They talked about feeling stronger and braver. They talked about feeling better understood by their friends and family. And they even talked about feeling happier, even though they were in pain, even though they were tackling the toughest challenge of their lives.

Now at the time, I'm thinking to myself, what is going on here? I mean, how could a game so trivial intervene so powerfully in such serious, and in some cases life-and-death, circumstances? I mean, if it hadn't worked for me, there's no way I would have believed it was possible. Well, it turns out there's some science here, too. Some people get stronger and happier after a traumatic event. And that's what was happening to us.

The game was helping us experience what scientists call post-traumatic growth, which is not something we usually hear about. We usually hear about post-traumatic stress disorder. But scientists now know that a traumatic event doesn't doom us to suffer indefinitely. Instead, we can use it as a springboard to unleash our best qualities and lead happier lives.

Here are the top five things that people with post-traumatic growth say: "My priorities have changed." "I'm not afraid to do what makes me happy." "I feel closer to my friends and family." "I understand myself better. I know who I really am now." "I have a new sense of meaning and purpose in my life." "I'm better able to focus on my goals and dreams."

Now, does this sound familiar? It should, because the top five traits of post-traumatic growth are essentially the direct opposite of the top five regrets of the dying. Now this is interesting, right? It seems that somehow, a traumatic event can unlock our ability to lead a life with fewer regrets.

But how does it work? How do you get from trauma to growth? Or better yet, is there a way to get all the benefits of post-traumatic growth without the trauma, without having to hit your head in the first place? That would be good, right?

I wanted to understand the phenomenon better, so I devoured the scientific literature, and here's what I learned. There are four kinds of strength, or resilience, that contribute to post-traumatic growth, and there are scientifically validated activities that you can do every day to build up these four kinds of resilience, and you don't need a trauma to do it.

I could tell you what these four types of strength are, but I'd rather you experience them firsthand. I'd rather we all start building them up together right now. Here's what we're going to do. We'll play a quick game together. This is where you earn the seven and a half minutes of bonus life that I promised you earlier. All you have to do is successfully complete the first four SuperBetter quests. And I feel like you can do it. I have confidence in you.

So, everybody ready? This is your first quest. Here we go. Pick one: Stand up and take three steps, or make your hands into fists, raise them over your head as high as you can for five seconds, go! All right, I like the people doing both. You are overachievers. Very

good.

(Laughter)

Well done, everyone. That is worth +1 physical resilience, which means that your body can withstand more stress and heal itself faster. We know from the research that the number one thing you can do to boost your physical resilience is to not sit still. That's all it takes. Every single second that you are not sitting still, you are actively improving the health of your heart, and your lungs and brains.

Everybody ready for your next quest? I want you to snap your fingers exactly 50 times, or count backwards from 100 by seven, like this: 100, 93... Go!

(Snapping)

Don't give up.

(Snapping)

Don't let the people counting down from 100 interfere with your counting to 50.

(Snapping)

(Laughter)

Nice. Wow. That's the first time I've ever seen that. Bonus physical resilience. Well done, everyone. Now that's worth +1 mental resilience, which means you have more mental focus, more discipline, determination and willpower. We know from the scientific research that willpower actually works like a muscle. It gets stronger the more you exercise it. So tackling a tiny challenge without giving up, even one as absurd as snapping your fingers exactly 50 times or counting backwards from 100 by seven is actually a scientifically validated way to boost your willpower.

So good job. Quest number three. Pick one: Because of the room, fate's really determined this for you, but here are the two options. If you're inside, find a window and look out of it. If you're outside, find a window and look in. Or do a quick YouTube or Google image search for "baby [your favorite animal.]"

Do it on your phones, or just shout out some baby animals, and I'll put them on the screen. So, what do we want to see? Sloth, giraffe, elephant, snake. Okay, let's see what we got. Baby dolphin and baby llamas. Everybody look. Got that? Okay, one more. Baby elephant.

(Audience) Oh!

We're clapping for that? That's amazing.

(Laughter)

All right, what we're just feeling there is plus-one emotional resilience, which means you have the ability to provoke powerful, positive emotions like curiosity or love, which we feel looking at baby animals, when you need them most.

Here's a secret from the scientific literature for you. If you can manage to experience three positive emotions for every one negative emotion over the course of an hour, a day, a week, you dramatically improve your health and your ability to successfully tackle any problem you're facing. And this is called the three-to-one positive emotion ratio. It's my favorite SuperBetter trick, so keep it up.

All right, pick one, last quest: Shake someone's hand for six seconds, or send someone a quick thank you by text, email, Facebook or Twitter. Go!

(Chatting)

Looking good, looking good. Nice, nice. Keep it up. I love it! All right, everybody, that is +1 social resilience, which means you actually get more strength from your friends, your neighbors, your family, your community. Now, a great way to boost social resilience is gratitude. Touch is even better.

Here's one more secret for you: Shaking someone's hand for six seconds dramatically raises the level of oxytocin in your bloodstream, now that's the trust hormone. That means that all of you who just shook hands are biochemically primed to like and want to help each other. This will linger during the break, so take advantage of the networking opportunities.

(Laughter)

Well, you have successfully completed your four quests, let's see if I've successfully completed my mission to give you seven and a half minutes of bonus life. Now I get to share one more little bit of science with you. It turns out that people who regularly boost these four types of resilience -- physical, mental, emotional and social -- live 10 years longer than everyone else. So this is true. If you are regularly achieving the three-to-one positive emotion ratio, if you are never sitting still for more than an hour at a time, if you are reaching out to one person you care about every single day, if you are tackling tiny goals to boost your willpower, you will live 10 years longer than everyone else, and here's where that math I showed you earlier comes in.

So, the average life expectancy in the U.S. and the U.K. is 78.1 years, but we know from more than 1,000 peer-reviewed scientific studies that you can add 10 years of life by boosting your four types of resilience. So every single year that you are boosting your four types of resilience, you're actually earning .128 more years of life or 46 more days of life, or 67,298 more minutes of life, which means every single day, you are earning 184 minutes of life, or every single hour that you are boosting your four types of resilience, like we just did together, you are earning 7.68245837 more minutes of life.

Congratulations, those seven and a half minutes are all yours. You totally earned them.

Yeah!

(Applause)

Awesome. Wait, wait, wait. You still have your special mission, your secret mission. How are you going to spend these minutes of bonus life?

Well, here's my suggestion. These seven and a half bonus minutes are kind of like genie's wishes. You can use your first wish to wish for a million more wishes. Pretty

clever, right? So, if you spend these seven and a half minutes today doing something that makes you happy, or that gets you physically active, or puts you in touch with someone you care about, or even just tackling a tiny challenge, you're going to boost your resilience, so you're going to earn more minutes.

And the good news is, you can keep going like that. Every hour of the day, every day of your life, all the way to your deathbed, which will now be 10 years later than it would have otherwise. And when you get there, more than likely, you will not have any of those top five regrets, because you will have built up the strength and resilience to lead a life truer to your dreams. And with 10 extra years, you might even have enough time to play a few more games.

Thank you.

(Applause)