In 4 days, Lisa will make a third attempt to pass her statistics exam. In her own words: “It’s a living hell.” Each year, Lisa and 37,000 other students in the Netherlands, who take courses in psychology, communication sciences and many other fields, consider statistics to be the most difficult course of their curriculum. This will probably not be true for the data-loving, number-crunching, calculation-craving McKinsey people in the audience. But for the rest of the population, statistics is hell. The question is: does it really have to be this way?

We believe it does not. To change this situation, we need to fundamentally rethink the way we teach. We believe that there are three flaws in our current educational system that we need to change:
1. Education is focused on *instruction instead of motivation*. Students are more motivated and learn the subjects better when they really understand *why* they are learning something.
2. Courses like statistics have no clear end-point and milestones. Lisa works very hard and does all the exercises her instructor posted. Still, she does not really understand it and is never sure whether she is ready or not. We need to use *insights from the gaming industry* on how to guide people through levels towards a final goal.
3. Much of education is based on what we call “*dictatorship-teaching*”. Learning is in large classes, it’s mass-communication. It’s *not tailored* and there is *not enough feedback* to improve our teaching.

Jolanda Koot and myself want to start this change in statistics. Statistics is the corner-stone of science and valued a lot in companies and organizations. Therefore, we are working on a game you can play on your phone. It is called I Hate Statistics.

In the game you are small monkey on a tropical island. You climb the volcano and enjoy the view. But suddenly there are angry monkeys who want you off the island! You find yourself a large banana-leaf and race down the mountain. You have to arrive precisely at the shore: not far enough and the monkeys will catch you, too far and you’re in the shark invested ocean. The goal is to reach the beach.

Let me show you!

While playing: “I’m now playing against Jolanda. When I hit space the I stop, so I have to time it just right. In future versions you will play this on your phone by tapping the screen. “

After 25 attempts, a question appears: WHO WON? Jolanda or myself? How can we know for sure? I now need to make a small puzzle to find out whether me or Jolanda has scored most points. The answer is simple, we measure the distances to the shoreline and visualize this. The trick is easy but powerful: I have won my first statistics tool: the Histogram! They compare their histograms, calculate their own scores and lucky for me, I have won!
The next step is that we take the average scores of everyone in the room here. What we discover is magical: we will see a normal distribution arise!

Now the next level: What if you want to play this with people from the US? They don't use centimeters, but inches. So you need to standardize and we introduce Z-index an so we continue.

This is in essence the game we are creating. Note that we don't think we are creating the next angry birds here.
We want to offer students a choice: pass the course using a boring book or an interesting game.

I Hate Statistics will not only brighten Lisa's life. It also opens up the opportunity to collect large amounts of data: where do people stop, what are they having difficulties with. In this way we can *tailor* the course and use this data as feedback to *improve* the way we teach statistics.

Jolanda and I are changing the notouriously boring and difficult subject of Statistics. This may not make Lisa suddenly Love statistics. But we sure hope that it will be the last time that she said: I HATE STATISTICS!

Thank you.