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# CIVIL ENGINEERING ACADEMY PODCAST

Hosted By Isaac Oakeson

## CEA 77 - APPLYING THE MARIO EFFECT TO THE FE AND PE EXAMS

Throughout our lives, we're always trying to overcome the hurdles of reaching the next level, whether it's going from junior to senior in college, getting the PE license after passing the FE, or even going from one job position to the next. The real challenge, however, lies in how we frame the situations we need to go through in order to reach such a new level and not really the situations themselves. That's called the Super Mario Effect.

First mentioned by the Youtuber Mark Rober during his widely famous TEDx Talk, the Super Mario Effect basically says that we should keep our focus on saving the princess (our ultimate goal) instead of the traps and pits that can hold us back and force us to try again. Mark came up with an experiment that aimed at proving that anyone can have programming skills despite their backgrounds. But instead of putting volunteers in front of the usual computer language software like C++ and Python, he developed a simple

game whose goal was to navigate a car through a maze using a simple programming structure of connecting pieces and then running the algorithm. For this experiment, he separated volunteers into two groups. The first group would get penalized by two points every time they failed in completely navigating the car to the other exit of the maze. The other group would, on the other hand, would not be penalized at all despite their failed attempts and would in fact be encouraged to keep trying until they could successfully navigate the car through the maze.

The results of this experiment are kind of surprising. Mark found out that the group of people who were not penalized for their failures and were in fact inspired to keep trying despite their unsuccessful attempts showed a 16% higher pass rate when compared to the group of people who got penalized for every failure they made. The reason for this discrepancy is that people in the first, not-penalized group were completely focused only on achieving

their ultimate goal of navigating the car through the maze, while people in the other group had their attention and focus divided by the possibility of losing points every time they failed.

Therefore, the conclusion of this experiment is that the process of achieving a higher level in our personal and professional lives will be a lot more fun, exciting, and rewarding if we focus on the ultimate goal and on the learning and improvement we'll need to go through to get there, which not only makes us smarter but also more satisfied for achieving something we've always wanted to. By elaborating on this and explaining why we should see failure in a completely different light, Isaac presents the tips we can use to make the journey of studying for the FE and PE exams not only a fun experience but also a process with a rewarding and steep learning curve.

## Resources

KiwiCo - [Website](#)

Built Bar - [Website](#)

The Super Mario Effect: Tricking Your Brain into Learning More, by Mark Rober) - [TEDx Talk](#)

Mark Rober's Channel - [Youtube](#)

Ultimate Civil PE Review Course - [Link](#)

Ultimate Civil FE Review Course - [Link](#)

[Civil Engineering Academy](#) - If you need exams, solved problems, or courses, make sure to check out our home base.

Civil Engineering Academy's Youtube Channel - [Link](#)

[CEA Community](#) – Haven't joined up on our free community? What's wrong with you? J/K. Ok, just go there and join a group of like-minded civil engineers!

[CEA Newsletter](#) - Join over 4000 engineers like you and learn the tips and tricks to passing the FE and PE. We even have a free resource for you!

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