As “we know the real learning implies stepping into the unknown which initiates a rupture in knowing”[[1]](#footnote-1).

What we do not want although for students is to step on the accelerator when they should decelerate while driving a Lamborghini without having previous knowledge.

The skills they learn and how they learn, it will make a difference in their future professional life.

I usually start with the Threshold concepts (TC) when teaching about the “Current Topics in Quality Engineering”. While some students might have previously gained knowledge about the use of the Quality Tools, they might not have learned about the large variety of different environments in which the quality tools are applied. They might not know how to master their learning and development such that at the end of the course, they would be able to see not only the entire picture but also to further develop their own “car” and style of driving.

The breakdown and separation between the theory of the quality tools and their application are therefore important. The seven tools that students learned during another course are:

* Cause-and-effect diagram
* Check sheet
* Control chart
* Histogram
* Pareto chart
* Scatter diagram
* Flow chart
* A car parked on the side of a road

  Description automatically generatedRun chart

Photo by [FrenchCarHunter](https://unsplash.com/@fcarh?utm_source=unsplash&utm_medium=referral&utm_content=creditCopyText) on [Unsplash](https://unsplash.com/@fcarh?utm_source=unsplash&utm_medium=referral&utm_content=creditCopyText)

Figure 1 Yellow Lamborghini

In the course that I teach, while each student reviews the benefits of each of the quality tools they chose, I teach them how to learn to enlarge the scope of the tools and further develop them by using the technologies and different business environments.

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1. Threshold concepts and transformational learning. *Reference & Research Book News*. 2010;(4). Accessed August 27, 2020. https://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.241135355&site=eds-live&scope=site [↑](#footnote-ref-1)