

Yes, but what does it mean?

MIT Practice School at Vale Soluções em Energia, Brazil

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Station Director

A great learning offered by the Practice School program is how to continually take a step back, look at the big picture, and then ask, what does this mean? The students at this station learned how to do this time and time again. They performed many calculations but soon learned that while such efforts often suffice in the classroom, they don't suffice in the real world where answers need to be put into context and then developed into strong conclusions and impactful recommendations. For example, instead of simply saying, our calculations show that X performs better than Y, the VSE students learned to do the necessary additional work to be able to say, ... X performs better than Y for the following reasons... and here's what this means for this project and for your company.

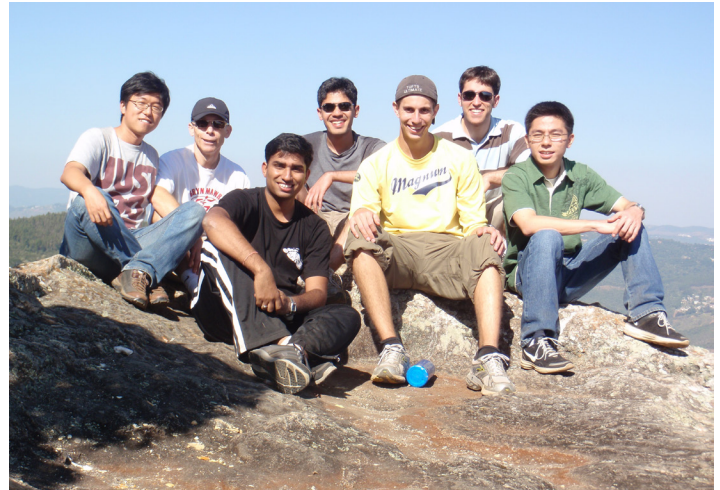
The VSE students further learned that a necessary component of the above is the absolute need to develop a complete understanding of the fundamental chemical engineering principles involved in their project. Only upon such a solid foundation could they build a solid project, one in which they were in full command to proactively tell others the technical underpinnings of their work as opposed to having others ask.

The students acquired a great education at VSE, learning the above professional skills as an outcome of working on projects involving such classic chemical engineering topics as heat pipes, water desalination, corrosion, and coal gasification. In keeping with the typical Practice School experience, none of the students had any background in these topics prior to VSE, and all became very proficient in these topics within a very short time period. And this too became a great education. They now know that they can walk into any situation, rapidly come up to speed, and almost immediately contribute.

VSE generously enhanced our professional experience by creating two half-day tours during our stay, the first to Brazil's National Institute for Space Research (INPE), where we observed all that goes on when building and testing a satellite prior to launch, and the second to Embraer, the world's #3 airplane manufacturer, where we saw some fascinating assembly lines for commercial aircraft.

One of the best side-benefits (for both students and directors!) of conducting programs at such locations as VSE, which is located in Sao Jose dos Campos just outside Sao Paulo, is the opportunity to see new sights and to learn about other cultures.

"I love the following quote from Eleanor Roosevelt: Do one thing every day that scares you."



VSE Practice School conquers Pedra de Bau! From left to right: Maolong Liu, Bob Hanlon, Vaibhav Jain, Nisarg Shah, Ethan Gillett, Dave Borrelli, Barry Tanny.

Our VSE hosts kindly helped guide us towards such activities: visiting small villages of beautifully colored homes, hiking scenic but challenging mountain trails, tasting delicious churrasco (such great cuisine was admittedly challenging for the vegetarians in our group), cheering at a loud and energized soccer game in Sao Paulo, and walking along the beautiful beaches in Rio de Janeiro. Regarding the last item, I guess one additional learning for the students is that life is not always fair. Each time an attempt was made to visit the Brazilian beaches, the temperature dropped and the rain clouds appeared. Each time.

One final and unforgettable experience for the entire group occurred during our visit to Rio. I love the following quote from Eleanor Roosevelt: Do one thing every day that scares you. But in Rio I learned that it's one thing to be inspired by this quote when sitting in a comfortable leather chair at home, and an entirely other thing when standing on the edge of a cliff, waiting to run off a ramp and hang-glide over Rio. Turning inspiration into reality was quite confronting! The VSE students were about as adventurous as any I've seen, and they effectively pulled me out of my comfort zone and put me on the edge of that cliff right there with them. And each and every one of us made that jump and enjoyed the experience of a lifetime, slowly gliding down to beautiful Rio below. This was a great team effort and provided me with my own personal learning experience, for which I thank the students here.