



## INTERNATIONAL CENTRE FOR NUMERICAL METHODS IN ENGINEERING UNIVERSITAT POLITÈCNICA DE CATALUNYA

MASTER OF SCIENCE IN COMPUTATIONAL MECHANICS

## **Communication Skills**

Seminar Critical Review

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Submitted To: Prof. Pablo Sáez Prof. Pedro Diez

## "REACTIVE TRANSPORT: NUMERICAL ISSUES AND CHALLENGES" BY JESÚS CARRERA

Oral communication among researchers can be considered as important as the research itself. This is the most direct form to share scientific information and new discoveries. And also, the presenter acquires credibility and recognition.

The first impression of any conference is important to attract the attention of the public. The professor Carrera started with an incredible picture of Naica caves from México. This was his first slide, with no titles or text, just the picture. In my opinion, this was a great beginning because everyone looked at him waiting for what he would say about. With that, he gave us a visual idea of what is the main purpose of the transport through porous media. This is called *create expectation*, and he succeeded on it. This was accompanied by a motivating introduction, in which he talked about the objective of the research he is performing at this moment.

After introduction and motivation, professor Carrera started explaining the main concepts and mathematical expressions involved in the research. At this point, he managed carefully the explanation because he *kept simple* every difficult detail, he did it very well, and also he used several analogies by using words and concepts that are known by the persons in the room, which helped to understand even more his research. This was another good point because it is important to know the type of audience that you have. He also used non-formal words and also he said some jokes that helped to "relax" the topic.

Body language can't be avoided at an oral presentation, this could help to the explanation, but also can reduce the quality if is not controlled properly. Unfortunately, most of the time the body language performed was over exaggerated. Instead of giving a better understanding, some parts were lost and could appear as a nervous reaction. This could be a consequence of the personality of professor Carrera, who seems a pragmatic person. Sometimes this helps because it seems motivational, but it was not the case for this presentation. There was a lot of moves between the stage, and the people can not put sufficient attention.

Another aspect out of place was that he tried to explain mathematical formulae, and he uses the blackboard to develop some other expressions, that took a long time. This was confusing for almost every person in the room because it was difficult to understand what he was trying to explain and also because not everyone can see clearly the expressions. Instead of using this time he could prepare some slides that made this work easy and self-explanatory.

In sum, professor Carrera seems like a distinguished researcher, with incredible confidence at speaking. His pragmatic personality increases the attention of the audience but in bigger quantity could reduce the quality of the explanation. In the end, the topic was very interesting, created expectation and the people reacted positively, which is the main purpose.