

### APRENDICES | T1: E2 Nicolás Jodal

### Desgrabación corregida - Inglés

Link:

Aprendices | T1 | Episodio 2: Nicolás Jodal

### INTRO

We all have some talent.

The educational system would be enormously powerful if we enabled our students to find their talent.

What is a great teacher?

It's the teacher who knows how to find each student's talent.

That ability in a teacher would be the non plus ultra, right?

To see the kind of talent each student has and help them find their way.

### PREVIA

How are we?

Everything alright, Nico? Thank you for coming.

Please.

You have an impossible task, man.

You're not going to fix me up.



We want to get to know some of the abilities you've developed throughout your life that make you go: "Wow, this turned out to be really important and it'd be nice to develop these kind of abilities in all our children".

Morning, morning.

This brings back a lot of memories. This is where I gave my Ted talk.

The year? It was the first year of the Ted talks. I think it was 2009.

Or 2010, yeah.

Perfect.

It's much more practical to look at you than at a camera.

Oh, yes.

When I look at a camera, it's like talking to a wall, you know?

It's a lot more complicated.

We've been accostumed to talking to something without a physical presence.

Yes, yes. That too.

We've become experts.

Well, Zoom is the death of me. It makes me look at myself, and that kills me.

Excuse me.

I told you you wouldn't be able to fix me.

I warned you before.

Very well, thank you.

Please.

### CHARLA

If I had to define myself, I'd define myself as a builder.

I like building things.



My professional life has to do with building, I'm always thinking about that... I'm a builder, that's how I define myself.

As a teenager, I knew that.

I was, well, working in Buenos Aires. I'd come to live with my father to Buenos Aires. I was a worker in a factory, and then one time I picked up the Clarín newspaper, and I saw an ad about a microcomputers course.

...in the course, we were 7 or 8 people. I was the youngest.

So I arrived, I sat before the machine, wrote my first program and said: "This is I want to with my life".

I realized this is what I wanted to do, but I was in the wrong time at the wrong place... I was in Buenos Aires working in a factory. "I have to go back to Uruguay, I have to get into Computer Science and that's what I want to do".

Throughout my life, I've had moments that lasted a second, but they were like intuitions that defined things I did for decades.

### By the way, how old where you when you were working in Buenos Aires?

20 years old.

### 20 years old, working as...?

Working in an asphalt factory.

### So what did you learn through that experience?

I learned many things outside the educational circuit. I learned what we call "the university of the street". I learned a lot from it. I was exposed to many such situations.

Another time, a while later, after I came back to Uruguay to study Engineering, my family and I were in a critical situation economically, so I found a place where I sold color TVs, in Paris Television.

I sold right in the street, and I have enormous affection for that job, for the place, for the things I learned there. I learned a lot of amazing things about life.

And there was my first contact was Miguel Brechner.

Miguel Brechner, the founder of Ceibal, was... I sold for Paris TV and he sold it all the systems, right?

So he would come and talk to the owners and bosses, and I'd hear him talking about computers and I saw that as very far from me... Later we wound up being good friends.



I was thinking about your process. You began to study... when you started high school, did you already know what you wanted to do or did you try different things? You told me you worked in different things, but was it a linear or non-lineal road?

During high school, it was very clear to me that I liked all the hard sciences: Maths, Physics.

But I also liked History and Biology very much.

You're a Biology teacher. I like it and I have great memories of all I learned from Biology.

I liked History and Biology very much, as well as science, so that became my road.

When I got to fourth year and had to make up my mind, I knew I'd choose Engineering.

Look, I had two teachers in high school who left a big mark on me.

One was Raúl Cohe, a Chemistry teacher, who taught me about the scientific process. He had a science club, where we did many things. This was of great value to me.

I don't remember anything about Chemistry, but what stayed with me was his love of science and the scientific method. He taught me that.

I had another teacher called Eduardo Tornaría, a Physics teacher. I told him I wanted to make calculations for a rocket to go through the atmosphere.

I was in third or fourth year of high school... I didn't have the maths necessary to do it, nor the knowledge to do it, but he didn't say "no". He told me to do it and that he would help me.

Those things helped me to change.

Look, I was a mediocre student all through the first three years of high school, always average... but in the following three years, I got a lot better.

And that happened precisely because those teachers made me aware of certain things.

There was also Infantozzi, a Maths teacher, who was a great help to me. My teachers influenced the way I dealt with life. It's a fundamental thing.

### I'm trying to see a pattern in those teachers who shaped you. What they did do differently?

One thing is that they demanded a lot from me.

I always... I always liked that.

Teachers who would challenge me with material I didn't fully understand. That was...



Another thing, as in the case of Rául Cohe, was that we had a very personal bond.

Not in the sense of friendship, but in the sense of having conversations and sharing stories outside the classroom.

Infantozzi, the Maths teacher, was a lot more impersonal, as befits a good mathematician.

But it was their demanding nature, and also... They also cleared away the doubts I had, but with greater and greater expectations for me.

## Do you recall the Chemistry lessons, and the desire to learn what happens with this and that, and to experiment?

Yes, yes. For instance, Raúl and I wanted to make a camera to look into radioactive stuff. So we had to get radioactive material in Uruguay.

Finally, we found out that the black sand of La Coronilla has radioactive material. So I got my father, who had to go to Brazil, to make a stop in Chuy and get us sand. We also got dry ice from an ice cream factory...

All those things took us... and then we looked at gamma rays...

All those experiments led me to love the process very much.

I see it reflected today on the people who work in robotics.

It's a similar thing, it's the modern version.

I experience science through building, through doing things.

# In what part of your life did you get the opportunity to communicate what you were doing?

#### Did you ever get a chance to do that in high school or primary school?

I wasn't very talkative back then.

The ability to make presentations came further down the road.

Back when I was in high school, doing presentations wasn't common. It wasn't something they would teach you.

Today I consider it a fundamental skill.

If I had to go back to high school, I'd tell them to teach me how to make presentations.

Or teach me how to set up meetings. But I had to learn that much later.

For the system in general, I think we must teach some things that weren't taught earlier, at least in my time.

# Aprendices 🚺

For example, how to make presentations, how to set up meetings. It wasn't so important before.

How to set forth an argument.

Look, in the old days... who argued? It was only politicians debating and things like that.

Today, in any social network, everyone is arguing, you see it... and it's horrible.

You have to teach basic things about arguing.

There were some abilities that weren't so important, but that now are.

If I had to pick one, above all, it would be critical thinking.

It wasn't so important in my time. Now it's fundamental.

Why? Because you're exposed to so much information that if you don't develop a critical spirit, and the ability to doubt and have a roadmap to confirm the truth of things, especially an ability to modify your thinking, then you're lost in a very dangerous world.

Because the world today is very dangerous... It's wonderful, in the sense that we have access to all the info we want.

If I want to know something about robotics, if I need the latest paper, right now, I can access it all this very second. But, if I want to learn flat-Earth physics, there's a website about flat-earthers where they explain the physics for you.

### I want to ask you how being competent in communication has informed your work and your life. And also, have you learned from past errors?

To me, the ability to make presentations has been essential, and it marked a change in my professional life.

There came a time when I felt dissatisfied with my presentations, and I became self-aware of how I made them.

And I started to study, to read.

If there's something Uruguayan education gave me is the ability to go through tedious books. Pick up a book that is a bore and read it from page 1 to 250 and further.

The Uruguayan educational system taught me that.

And I said, well, if I'm bad at this, I need to read a book on how to make presentations. If I wasn't taught this, then it becomes a personal matter to learn it.

One of the things we do at the company is to offer two courses to those who come in: how to make presentations and how to set up good meetings.



The subject of meetings is also an incredible thing. Nobody teaches you that, not in high school, and not in college, either.

You get a Business Management Administrator-whatever degree, and they don't teach you how to set up a meeting, and you spend most of your time at meetings. It's the most important thing. You spend most of your time there.

Now, the most important ability is to be convincing. You no longer have authority.

You can't use authority. What you have to do one way or another is to be convincing.

That's why communication is so important.

Communication works both ways. It's not that you say: "I'm in charge here", but rather "I'm part of a group seeking the truth". My opinion is mine but there can be others much more valid than mine.

Another thing is the matter of accepting diversity.

Now everyone talks about diversity, it's a very good thing, and we all look good talking about it.

But there's a fundamental component, and when I say diversity I mean it in the deeper sense, which is that people think differently.

What we have to do is to learn to work with people who think differently.

How do I handle myself in a diverse environment, in a deep sense? I surround myself with people who work in different ways.

It happens to me every day, well not every day, but often, that I leave work in a rage. And that's because I get mad at someone who thinks totally differently from me.

But the company is designed for that.

If I didn't get mad, then it wouldn't be sufficiently diverse. Diverse means I get mad, if I don't get mad... it's not so diverse. It's politically correct, but it's not real.

So we also have to learn that, how to handle oneself in such diversity. This guy thinks totally differently to me, but there's a possibility he's right, and there's a possibility I'm wrong even though I feel in the right. There's a chance he's right.

So I have to keep those opinions diverse, it's essential. I have to learn how to do that.

If I get together with a group where everyone thinks the same, there's no progress. We're smaller each time.

As for the second part of your question, the mistakes, I make more mistakes than anyone at the company. I'm the number one at that.



And people making mistakes doesn't worry me too much.

What interests me is that people are quickly able to correct their mistakes.

But no... I don't want errors in the company, no, no way.

We're going to have mistakes all over the place. What I want is that when we make them, we're able to resolve them quickly.

I think you learn from traumatic events. It doesn't have to be a mistake, but you learn a lot from traumatic events.

I once read that many enterprising people went through traumatic events during childhood or their teenage years. They had some traumatic episode, but it didn't break them. It gave them faith to do impossible things, because they had already faced it.

It happened to me. I know many entrepreneurs who went through tragic moments.

I believe the pandemic today is a factory of tragic moments.

There's a lot of bad things about it, but it will make us tougher, it will forge the character of future generations of entrepreneurs.

### Let's go back to that young Nicolás who thought of himself as a mediocre student. Well, what things could you have done differently? Something that allows us teachers to better understand our students.

I, looking back because you're forcing me to reflect...

Talent is unequally distributed. People's heights are equally distributed, but not talent. And I'm going to compare myself to Luis Suárez. He's a little taller than me. But his talent for football is infinitely superior to mine.

So, talent is unequally distributed.

Now, the other side of the coin is that each of us has a talent.

The educational system would be so powerful if we helped each student to find their talent.

After all, what is it that the teachers I told you about did? They helped me find my talent.

I already had the talent, but they helped me to realize what it was.

I think one of the biggest dramas today is being able to locate your talent, but you have one. You have one.

What is a great teacher? Well, it's the one who knows how to find each student's talent.

One example might be: have you seen those football coach stories? I think it happened to Godín, the guy used to play number 9 and someone came and told him: "No, you're a great defense", and he ended up being the best defender in the world, but he didn't know that then, he thought of himself as a number 9.

Well, I believe that...

That ability in a teacher would be the non plus ultra, to see the talent in each of their students and helped them find their way.

# I also imagine the role of the teacher, being more specific, in this questioning role, asking questions that help the students to think.

And above all, to make them think and change their mind. I mean...

To me, it's a wonderful thing. I thought a certain way and now I think differently. I went into the classroom thinking one way and now... look... I enter into discussions that make me change my mind.

If I have... if there are arguments, then I have the capacity to change my mind.

One of the things I dislike is when people get... stuck. They built their set of beliefs and they're done. And you show them all kinds of evidence and they don't change their beliefs.

I think the educational system is also about building that flexibility. I'm a person capable of changing my mind.