



ENTREPRENEURSHIP, INNOVATION, AND COMPETENCY-BASED EDUCATION - INTERVIEW WITH PROF. PAULO CÂMARA. ENGLISH VERSION

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NOTE: Transcript and translation version 1.0.

Dear friends, the interview transcription was done by machine and later reviewed. We are aware that there are imperfections. If you would like to collaborate with improvements, please contact us at southbchem@gmail.com.

<https://www.youtube.com/watch?v=ZXxPJzzgzZA>

ABSTRACT

Background: The interview was conducted with Professor Paulo Wilton da Luz Câmara, who serves as an associate professor at the University of Vassouras, general coordinator of postgraduate lato sensu programs, and deputy coordinator of the Master's in Environmental Sciences. The Professor has extensive academic and corporate experience. **Objectives:** The main objectives were to understand the importance of corporate experience in the role of a professor and researcher, discuss the evolution of public entrepreneurship policies in Brazil, understand the role of incubators, explore research on renewable energies in the defense sector, and learn about planned innovations for postgraduate programs. **Methods:** The interview was conducted in a semi-structured format with open-ended questions. The audio was transcribed for subsequent analysis and content structuring. **Results:** Corporate experience significantly influences academic performance. There has been relative improvement in public entrepreneurship policies, but the involved bodies lack specific knowledge. Incubators are necessary tools to foster entrepreneurship and innovation. The main challenges in renewable energy research for defense are awareness and organizational policy. Planned innovations for postgraduate programs include connecting education levels, shared management, and an open committee. **Discussion:** The Professor highlights the importance of practical corporate experience in enriching academic performance, noting advances in entrepreneurship policies while emphasizing the need for more specific knowledge. Incubators are seen as essential to fostering entrepreneurship and innovation. In the field of renewable energy applied to defense, challenges are related to awareness and organizational policy. **Conclusion:** The interview underscores the relevance of practical corporate experience in enriching academic performance and the need to improve entrepreneurship policies. Incubators are fundamental to fostering entrepreneurship and innovation. Research on renewable energies in defense faces challenges of awareness and organizational policy. Planned innovations for postgraduate programs aim for greater integration and participation.

Keywords: *Entrepreneurship, Education, Business Administration, Innovation, Technology.*

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Luís: Today, we have the honor of welcoming Professor Paulo Wilton da Luz Câmara for a Q&A session. Professor, first, I would like to thank you for your availability to meet with us and also make a small disclosure about our interview. Our interview will be distributed under a Creative Commons license, and it is public. The transcription of our interview in Portuguese will be published by Periódico Tchê Química and in English by the Southern Journal of Sciences. We will also share our interview with a partner television station. Professor, initially, I would like to ask you to introduce yourself and give a brief history of your career.



Dr. Paulo Wilton da Luz Câmara.

Dr. Paulo C.: First of all, I want to thank you for your attention. It's an honor to be talking with you. Given the objectives of our conversation, we'll get to a larger point. So, here it is: my name is Paulo Wilton Câmara. I'm an associate

professor at the University of Vassouras. I'm the general coordinator of lato sensu graduate programs and vice-coordinator of the Master's program in environmental sciences, for which I'm also part of the faculty. My background is in administration. My Master's degree is in administration, focusing on strategic planning and business. My doctorate is in political science, and my post-doctorate is in the defense industrial base. This name comes from the program that was carried out at ESG. I have about 35 years of experience in teaching and also in the corporate world, where I worked at various companies such as Coca-Cola, Pepsi-Cola, Philip Morris, IBM, and others.

Luís: Professor, regarding your experience in the private sector - IBM, Pepsi, Coca-Cola, Philip Morris - how does this corporate experience influence your role as a professor and researcher?

Dr. Paulo C.: I don't believe we can teach with confidence and proper direction if we don't have business practice, especially depending on the type of subject, discipline, or area. This is my view, and no one can change it. What I've learned to this day in the corporate environment, in the companies where I worked, obviously starting not in executive positions or functions, but eventually reaching them, I use and continue to use. I worked in sales, operations, and planning. I only wasn't involved in finance and production. I used the rest, including marketing. I usually tell my students, when referring to examples: "Look, excuse me for using my own examples, but it's because I know mine down to the smallest details and can answer any question about any of them. Third-party examples are just what's written, what we've heard." I do not doubt that my time in corporate life has helped and continues to help me greatly. Currently, I'm practically focused on teaching and academia.

Luís: Perfect, Professor. Moving on to our second question: in your doctorate, you addressed the question, "Why doesn't Brazil have an entrepreneurship policy?" Several years after completing your thesis, how do you evaluate the evolution of public entrepreneurship policies in Brazil?

Dr. Paulo C.: I've noticed that there has been a relative improvement, naturally, due to time and greater effort from the agencies involved. I highlight SEBRAE itself, which, in my understanding, is the most effective agency for

institutional reasons. It works, and SEBRAE has been working. I fought a lot during the time I provided ad hoc services for them. I didn't work at SEBRAE. I worked for SEBRAE, doing specific work according to their needs. So, I think this has been improving over time, although it's been a long time. We could be much more advanced in this if it weren't for some setbacks that we continue to suffer along the way.

The main problem I see is the lack of more specific knowledge from the agencies. That is, practical knowledge regarding general actions developed for medium and small-sized companies. Each group has specific needs, and within these needs, there are different moments. Not all companies, regardless of their group, need money, for example. Money is good for everyone, but sometimes the problem at that moment for that company isn't a matter of credit. Often, the problem is support, legal support, and specific knowledge. Actions are offered as if everything were the same thing. This understanding, I still think, complicates the direction and elaboration of public policies a bit.

Luís: Perfect, Professor. I'll move on to our next question. You coordinated business incubators at UNISUAM and Severino Sombra University, now University of Vassouras. What is the importance of incubators in fostering entrepreneurship and innovation?

Dr. Paulo C.: Regarding incubators, I might be biased because I love this business, but I think they are necessary tools that help a lot as long as they are well-directed and organized. Our concern is to bring what we discuss in the classroom to the market. Incubators, again, as long as they are well-organized and directed, are adequate tools to foster, direct, and help identify these good ideas that we bring from the classroom to transform into business. That's the primary objective of any incubator: transforming ideas into business. I have no doubt about the importance of these tools in teaching and business propagation.

Luís: Regarding incubators, Professor, what are your best memories? Any success case that you remember?

Dr. Paulo C.: This reminds me because I saw a duplicate of this in São Paulo sometime after we had already developed it at college, at University. It refers to an alarm. In Rio de Janeiro, we have a serious security problem, like anywhere in Brazil, but here things are more complicated. So, there was a group of students who built an

alarm inside buses to identify to those outside the bus that it was being robbed. I found that very interesting. Although it's not something of great splendor, it was a very cool thing, with very good practical effect. The kids thought about it, identified the problem, researched, and the thing worked out.

Luís: Perfect. Allow me to move on to our next question, Professor. In recent years, you have dedicated yourself to research on renewable energy applications in the Defense sector. What are the main challenges and opportunities in this area?

Dr. Paulo C.: The main focus is on awareness and the need for better use of physical spaces for applying related technologies, mainly through solar and wind energy. Those that can be used within the circular economy have now become a subject in my bioeconomics course. When we talk about recycling, biomass, where we use plants, organic waste, and others, we see military institutions with large physical spaces that could be used for developing these technologies.

The main problem lies in awareness and organizational policy. We see, for example, unit commanders who spend two years in the units and often don't have time to develop something. Sometimes, we can visualize actions in this direction that run into budgetary issues or other limitations. In the end, it's a binomial: policy and awareness.

Luís: Perfect, Professor. As General Coordinator of lato sensu graduate programs at the University of Vassouras, what innovations do you intend to implement in the courses under your management?

Dr. Paulo C.: Lately, I received one more gift, which was the free courses that were incorporated into the graduate coordination. I left the coordination of the administration course at our Maricá campus and was brought to Vassouras to take over graduate coordination. The first task was to restructure in all aspects: physical, organizational, personnel, human resources, and training of the people themselves. A lot of time was spent on this, and obviously, we haven't reached the end, but we're on the right path.

Within this path, I've always valued continuing education. One thing I'm working on more diligently is the connection between undergraduate, lato sensu graduate programs,

and Master's, starting with free courses. The general connection includes free courses, and undergraduate, graduate, master's, and doctorate programs. Master's and doctorate are a bit more complicated to achieve because they involve many other issues and aren't under my direct responsibility.

Within the area of free courses and graduate courses, we have total autonomy. We've been working in this direction of connection, showing what we have in lato sensu graduate programs and free courses. We do this through constant conversations and meetings with supervisors, coordinators, professors, and even students. We show that, even in the best course at the best institution, students will never leave with all the knowledge and skills needed. We need to complement this undergraduate development through the offer of these free courses and graduate programs.

Regarding environmental sciences, we're already well on this path. We're creating free courses and adding subjects focused on the matter. I have courses in Circular Economy, Bioeconomics, and Sustainability. We seek to bring all these things together to create a path in this direction.

We have the University's alumni meeting, which aims to bring these graduates into our work. We have research applications and development in some disciplines. For example, I transformed the TCC (Course Conclusion Work) into PFC (Course Final Project). This leads to a product presentation honoring innovation. We've ended the traditional TCC in some courses. We seek to capture these better potentials so that this becomes business in the end.

I work a lot with shared management in the sense of involving all employees, even in major business decisions. We have some specific agreements and permanently seek to put an open collegiate to work, where everyone speaks up, and the collegiate really matters.

We're now launching, scheduled for August 30, distance learning graduate programs.

Luís: Professor, I have two questions for you. How long have you been in Vassouras?

Dr. Paulo C.: Two years.

Luís: And regarding future planning for the

institution's development, how many years ahead have you planned for?

Dr. Paulo C.: For two years as well. Of course, the second year undergoes adjustments. In fact, the first one does, too. Any plan must be flexible; otherwise, it's not planning. I usually tell students that planning is flexible. Any plan has to be flexible; otherwise, it will not move forward. So, I made this plan for 2024, and it's going well. We've been making efforts, and it's going relatively well. For next year, 2025, I have a draft. It's not a detailed plan, and it's an outline that I feed according to what happens in 2024 so that by the end of 2024, I'll have the 2025 planning ready.

Luís: Perfect. All right then, Professor. Continuing, in 2020, you published the book "Competency-Based Teaching: A Matter of Resilience". Could you explain the concept of competency-based teaching and how it can be applied in administration courses?

Dr. Paulo C.: This work is a continuation of another work where we talked about "Are we delivering what we sell?". This first one emerged from an analysis and conversation about educational institutions saying what they want, selling education services, and to what extent this is true or not.

"Competency-Based Teaching" is a suggestion for a teaching model that replaces disciplines with modules. The curricular structure doesn't follow disciplines and periods but rather modules. This is because I understand there's a big difference between teaching for competency and competency-based teaching.

In this work, based on the National Curricular Guidelines for Administration and Field Research, we reached the conclusion of 13 necessary competencies for the administrator, distributed in nine modules. We created a framework where, on one side, the listed competencies are listed, and on the other side, the necessary knowledge is required to acquire that competency.

The application of this goes into practical experience where the value of course load practically doesn't exist. The value is the acquisition of competency. If that competency is acquired in 3 months, that's fine. If it's acquired in 6 or 7 months, that's fine. It depends on the characteristics and needs for acquiring these competencies.

This idea arose because technology, politics, and society are changing rapidly, and administration courses aren't always adequately adapted to this. It's difficult to have two or three curricular matrices running at the same time. In this suggested model, there is an enormous ease in maintaining this update relative to market needs.

Luís: Professor, moving on to our next question, your doctoral thesis used the Advocacy Coalition Framework as a theoretical framework. Could you briefly explain this model and how it can be useful for analyzing public policies?

Dr. Paulo C.: The Advocacy Coalition Framework is a reference model by Sabatier from 1999. It emphasizes the role of beliefs and values in the process of formulating, changing, and updating public policies identifying the groups involved.

The model begins by identifying the policy triggers based on problems and the policymakers, whether governmental, public, or private actors. The problem is identified, and these groups, as well as the beliefs and values that these groups attribute to that subject, are studied.

What we notice is that there isn't a global alignment regarding industrial policy, which involves entrepreneurship, innovation, production, in short, everything that involves the market. All of this exists, but it's very scattered. We try to understand why it works this way, and it's exactly because, for some groups, a subject isn't interesting, but it is for others. Then, another group enters in the middle and says the idea is theirs. Groups end up fighting over ideas.

At the end of this story, our biggest problem from the moment policies are implemented is the lack of evaluation. Evaluation of time, effective results, and budget. It's like a control process.

This doctoral work went in this direction. It helped me quite a bit to better understand how these things happen, as within the area of innovation and entrepreneurship, we also talk about public policies. Now, at least, I have an idea.

Luís: Perfect, Professor. Let's move on to our next question. You have extensive experience as an instructor and consultant for SEBRAE in Rio de Janeiro. What are the main challenges currently faced by Brazilian Micro and Small Enterprises?

Dr. Paulo C.: The current problems are basically the same old problems. The characters change, but the problems remain. The actors change. It's like what my grandmother used to say: "Change the bread, and the flies are still there," or vice versa.

First, I have already commented on this. I wasn't a SEBRAE employee, and I didn't work there. I worked for SEBRAE in an ad hoc situation, where I analyzed business plans and provided some instruction and consulting for some companies.

Regarding the challenges, the main ones is knowledge and the respective learning. There is a lack of knowledge of the target audience, which is the direct beneficiaries. I think that's the biggest problem. Then, we depend on people, the actors who shape these policies, and these knowledge directions. We depend on their specific knowledge.

That's why, when you asked about the corporate experience, it brought me exactly to this subject. That is, living, going through, and feeling the problem firsthand is different from you hearing about it, and listening to it. It's more or less like the theory of the paper engineer who has the diploma but has never built a building or been on the road. I usually say there are many theorists in company building. It's a journey that is priceless.

Luís: Professor, we're reaching our last question. Looking to the future, what trends and innovations do you believe will have the greatest impact on teaching and research in administration in the coming years?

Dr. Paulo C.: I have no doubt that it's technology development. And I connect this with the competencies business. What's new today? How do I bring this into my curriculum, into my grid, and into my content program?

To work with a curricular matrix, you can alter it from within the discipline. You can modify the content. I've always given professors the freedom to do this.

In truth, I think the entry of these new technological tools, especially those currently being pushed by artificial intelligence, is getting really serious. The biggest changes happening in knowledge in general - we're talking about

administration, but this is general - are related to agility, better control, and better management that these tools are providing.

I currently have an employee who learned BI (Business Intelligence). She's training and capacity building for other employees. Then, the employees create wonderful things. That's it: it's management and tools driven by technology.

Without any doubt, Artificial Intelligence has a great weight. The bases of the anchors won't change. If you talk about planning, for example, the good old SWOT analysis continues. The bases remain the same, but the way of doing things and the tools used to develop these bases are different. They're new, they're sensational, and more agile. Agility is one of the main points.

Luís: That's incredible, Professor. We've reached the end of our interview today. On behalf of the journals where we're going to publish, I would like to thank you for your availability to receive us. Also, on behalf of all conference colleagues, we hope to see each other in November, right? Have some wine.

Dr. Paulo C.: Very good. It will be very good. I'm the one who thanks you for the opportunity to talk about subjects that are really in my head, that even confuse me. Thank God they confused me; it would have been worse if I had certainty about each one. It was an honor to talk. I'm available if something hasn't been fully explained. Feel free.

Luís: Thank you very much, Professor. Have a good late afternoon.

Dr. Paulo C.: Thank you very much. Have a good weekend.

DECLARAÇÕES

1. Limitations: The interview is limited to its content.

2. Source of funding: The host funded this interview.

3. Conflicts of interest: The host has worked for the journal for many years, and this may have influenced the interview.

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