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Interview with Larissa Borges About the Complexity of Autonomy Development

Larissa Borges is an Associate Professor at the School of Modern Foreign Languages (FALEM) and the Graduate Program in Creativity and Innovation in Methodologies in Higher Education (PPGCIMES), at the Federal University of Pará, Brazil. She is the head of the research group CARE (Collaboration, Autonomy, Reflection and Empathy in Language Teaching) and of the Language Teaching Laboratory (LAEL), both focused on language teacher education. Her research interests include autonomy, empathy, and wellbeing in language teacher education within the framework of complexity paradigm. Larissa developed the Complex Dynamic Model of Autonomy Development (CDMA), drawing on her own and her learners' experiences and practices, as well as on research and theory in the wider field.

In this interview, conducted over email in February 2024, Larissa shares the story of developing the CDMA model and of using it to guide reflection, self-awareness, and autonomy management with different groups of students that she teaches.

Keywords: autonomy in language learning and teaching, complex dynamic model, reflection, collaboration, negotiation

Andy: Hello Larissa — many thanks for agreeing to be interviewed for this issue of *Learning Learning*. It's a pleasure to meet you and learn about your work, which I became interested in through reading your 2022 *Studies in Self-Access Learning Journal* article on [A complex dynamic model of autonomy development](#) (CDMA).

At the time I was reading other articles (Edsall et al., 2023; Paiva & Braga, 2008; Sockett & Toffoli, 2012; Yunita, 2023) using complex dynamic models about the development of learner autonomy, and I became interested in how the CDMA model is so closely connected to classroom practices, conditions, and processes that are often significant for teachers and learners in developing learner autonomy. In the next page is a static view of your model (Figure 1). The model and short YouTube videos (e.g., Borges, 2019a: [Complex dynamic model of autonomy development](#); 2019b: [Esther's autonomization process](#); 2019c: [Fabio's autonomization process](#); 2019d: [Gabriela's autonomization process](#); and, 2019e: [Marília's autonomization process](#)) are fascinating, and I started thinking that readers of *Learning Learning* would find your work on understanding autonomy development really appealing and interesting, hence the invitation to you for this interview.



Figure 1. The Complex Model of Autonomy Development (Borges, 2019f, p. 59)

Before focusing more on the CDMA model itself, I wanted to begin by asking from the *practice* side what puzzles you originally had as you worked with different learners about developing learner autonomy. What particular moments or incidents stand out for you as you look back? What questions *in practice* took you towards imagining modeling the development of learner autonomy in a complex dynamic way in your *research*?

Larissa: Many thanks for the invitation, Andy. I'm very happy to receive your feedback on my research. I'm thrilled to collaborate for the spring issue of the *Learning Learning* newsletter and to share more insights about my autonomy model. It will be a great opportunity to account for the complexity of autonomy development.

Autonomy has been a driving force in my academic trajectory. To answer your questions, let me take you back to my roots as a language learner. I've always been drawn to foreign languages, but I only started learning English when I chose to take a Teaching English as a Foreign Language (TEFL) course at the Federal University of Pará. In college, the great majority of my classmates were already fluent English speakers and I was a real beginner. Faced with this challenge, I had to develop my autonomy in the first place to learn English the fastest I could, establishing my own study agenda, using diverse learning strategies, and asking for the collaboration of more experienced classmates to practice the target language. Investing in my autonomy proved fundamental to fulfill my goals and to graduate successfully in 2003.

Fast forward three years, I find myself in the dual role of a temporary instructor and a graduate student at the same university where I started my academic journey. Naturally, autonomy was my theme in my master's research. By that time, I had learned autonomy was a linear process, in which learners were guided by predetermined steps already described in the literature then. However, my teaching experiences, coupled with more recent studies, revealed autonomy to be a dynamic and non-linear process developed in a personalized way for each student, and it puzzled me. It prompted me to explore autonomy development further.

My involvement in a university research group focused on autonomy, motivation, and language learning advising provided a fertile ground for expanding my understanding of these concepts and exploring them in my teaching practice. It was during this period that I was introduced to complexity theory, a paradigm shift that transformed my perspective about language learning and teaching. Suddenly, everything seemed to click into place. Embracing the interconnectedness inherent in language learning autonomy, I began my doctoral research, investigating autonomy development through the lens of complexity.

Living in the Brazilian Amazon, I have long been fascinated by the connections and reciprocity observed in nature. Just as nature operates within a network of mutual influence, I sought to capture the complex web of relations influencing autonomy development within the framework of my model.

Since 2009, I have had a tenured position in the TEFL program at the Federal University of Pará, marking a significant achievement in my academic trajectory. Being a language teacher educator has been a fulfilling experience since I've always believed in the transformative power of education on society. Teaching and researching in this context, I have had diverse, enriching experiences that surely expanded my understanding of autonomy and contributed to the elaboration of the Complex Dynamic Model of Autonomy Development (CDMA).

One of these experiences is the course "Learning to Learn Foreign Languages," which I have been teaching to first-year students as part of the TEFL program. This is the main context in which I have been exploring the model as a tool to guide reflection, self-awareness, and autonomy management.

Andy: What a challenging journey you went on when you first started learning and using English at university — I was also struck by the fact that when you later focused on learner autonomy in your Master's studies, you had seen autonomy as a linear process with predetermined steps, but that was now changing. It didn't match with your experiences as a teacher at that time and what you were learning from more recent work on learner autonomy — and that prompted you to dig further. Things shifted for you also through participating in the university research group and trying to understand the complex interaction of relations and processes in learner autonomy development. How did you begin to create the framework for the CDMA model? And what were some pivotal moments for you as you delved further?

Larissa: As I discussed earlier, autonomy has been a focal point for me, both in my academic and professional pursuits. I've had the opportunity to explore autonomy from various angles as a learner, teacher, adviser, researcher, and mother. Over the years, there's been a notable evolution in how autonomy is perceived within the field of Applied Linguistics. Initially, autonomy was predominantly viewed as an individual phenomenon, which emphasizes the learner's independence. Afterwards, there has been a notable evolution towards a social perspective, which highlights the learners' interdependence and their involvement within their social communities. Nowadays, there's a growing emphasis on the complex perspective of autonomy, which acknowledges the intricate interplay between individual and social dimensions, both influencing and being influenced by the contexts in which learners operate (Borges, 2019f). In my dissertation, I sought to illustrate these shifts in perspective, using an animation to visually convey the complex nature of autonomy (Borges, 2019g: <https://youtu.be/JO43peOfYBc>). From my standpoint, recognizing the interaction between individual and social aspects that influence autonomy development is crucial in understanding the

complex nature of this process. Consequently, I tried to integrate the complex perspective into the framework of my CDMA model.

Before developing the CDMA model, I extensively explored theories of language learning autonomy and existing models of autonomy development. These models presented autonomy development as a linear progression (Nunan, 1997; Scharle & Szabò, 2000), as a cyclical process (Benson, 2001, 2011), and as a dynamic process (Tassinari, 2010, 2012). Then, I wanted to contribute to the field by proposing a complex and dynamic model that comprehensively captures the wide web of manifold components that interact in autonomy development.

Concurrently, I engaged in data generation with participants of my PhD research, comprising four TEFL students who entered the course as English beginners. Over a period of four years, spanning the duration of the TEFL course, they provided valuable insights through learning diaries and a final interview on how autonomy evolved over time. Through data analysis, I aimed to better comprehend their autonomy trajectories, particularly examining factors that enhanced or inhibited autonomy development, according to the learners' perspectives. I was also interested in observing how they improved their social participation within academic contexts during the TEFL course, exercising their autonomy. The journey with these students was truly enlightening. It became clear that autonomy is influenced by a myriad of factors. Sometimes, what enhanced autonomy for one participant could inhibit it for another, highlighting the complexity inherent in autonomy development.

Thus, theoretical insights and empirical data informed the development of the CDMA model. By integrating theory and practice, my aim was to contribute to a deeper understanding of autonomy development and its implications for learners in diverse educational settings. Ultimately, I view autonomy as a lifelong process, subject to moments of advancement, stability, and setbacks involving the interaction among a large number of processes, elements, agents, and other subsystems (Borges, 2019f).

Andy: It's such a fascinating fusion of experience, practice, reflection, and research. Following your students' trajectories over four years from their own perspectives and mediating your emerging understanding with theoretical perspectives must have been so compelling.

Moving to the model itself, you conceptualize the development of learner autonomization "*as a complex, dynamic, and fluctuating process in which a point of arrival cannot be defined, as it is experienced in a non-linear and continuous way throughout life, with moments of advances, stability and setbacks, involving the interaction among a large number of processes, elements, agents, and other subsystems*" (Borges, 2022, pp. 203-204). As you take us further through the key components in the model, I find it helpful to keep in mind your observation that "*The primary movements of autonomy development suggested in the model, illustrated in green, do not occur in a sequence nor do they represent a formula to be followed with a guarantee of success. Due to the complexity and unpredictability of this process, autonomization takes place in a unique way for each learner.*" (Borges, 2022, p. 205) .

Larissa: The concepts you have quoted align with the inherent dynamism, non-linearity, unpredictability, and lifelong nature of autonomy development. Autonomy is not a fixed state to attain, but a continuous journey requiring ongoing investment to sustain its dynamism across varied contexts; without such investment, the autonomization process may stabilize or even suffer setback. Due to its sensitivity to context and influence by various factors, outcomes for each student are inherently unpredictable.

In my analyses, one participant admitted to lacking time for English studies beyond their college classes. The lack of engagement with learning strategies and available resources resulted in the loss of energy in her autonomy system, and after the fourth semester she dropped out of college. Conversely, another participant, despite facing significant challenges like being a wife, homemaker, and pregnant with twins during college, demonstrated remarkable resilience. She consistently reflected on her learning, asked for the collaboration of a language adviser, negotiated strategies to be used, and constantly evaluated her progress. She invested in her autonomy and achieved her dream of graduating and becoming an English teacher.

The CDMA illustrates the complexity of autonomization by showing a large number of processes, elements, agents, and subsystems involved. The lines that connect the whole system emphasize the potential mutual influence among its components. At certain times, some interrelationships are more evident than others, and new behaviors that may emerge from them is what prevails. In addition, the **context** – represented in a fluid way through the dotted outline in gray – plays a pivotal role since this is where all relationships are developed, encouraging or inhibiting autonomous behaviors. The contextual aspects encompass the **agents** with whom learners interact, the **affordances** of the environment, and the **attractors**, patterns of behaviors preferred by the system along its trajectory.

Reflection is considered a supra-dimension illustrated at the top of the model.

And **collaboration** and **negotiation** are also fundamental processes to support the autonomy development, represented at the base of the model.

Thus, the primary movements of autonomy development outlined in the CDMA — **reflection, planning, actions, emergence, empowerment, transformation, and evaluation** — are mobilized in a personalized way for each student along their trajectories. **Reflection** may facilitate conscious choices, effective **planning, actions, and evaluation**, besides contributing to the **emergence** of new autonomous behaviors. **Empowerment** leads learners to take on more central roles within the academic community, exercising their autonomy. **Transformation** involves adapting and applying acquired knowledge to broader contexts — a typical feature of autonomous students. All these movements of autonomy development require reflection and investment from learners, underscoring the importance of emphasizing and integrating them into educational environments.

As an open system, autonomy also interacts with various subsystems represented in the CDMA, such as **motivation, identity, beliefs, affect, and others** over time. While some interactions may enhance autonomy development, others may hinder it. In the CDMA, rather than quantity, the quality of interactions is paramount in driving changes in autonomy development. For instance, the interplay between autonomy and affect can either foster **dynamism** or contribute to **dynamic stability**. In complexity theory, dynamic stability does not mean stagnation; it is a state in which few changes happen in the system. Larsen-Freeman and Cameron (2008) also refer to it as “**stability in motion**.” As an example, emotional challenges experienced by a participant initially led to dynamic stability, but proactive engagement with available resources and the use of new strategies negotiated with her teacher and her adviser promoted changes in her system that triggered the dynamism of autonomy again. In the realm of complexity theory, change is a central concept, as it can lead to the emergence of new states (Larsen-Freeman & Cameron, 2008). Therefore, **fostering a dynamic environment conducive to change** is essential for sustaining and enhancing autonomy development.

Andy: Thank you for taking us through the model so succinctly, Larissa. You mentioned earlier that you have been exploring the model as a tool to guide reflection, self-awareness, and autonomy management with the undergraduate students that you are teaching. Could you share with us some examples of how you do this, and of how different students have responded to understanding their own learner autonomy trajectories in such presumably new, complex, and dynamic ways?

Larissa: Sure. The course “Learning to Learn Foreign Languages” I teach for first-year TEFL students stands on the pillars of reflection, negotiation, and collaboration — aspects that are also emphasized in the CDMA. Throughout the course, I engage in negotiation with learners on key elements such as goals, the schedule of activities, the assessment instruments and criteria, among others. Empowering students to share control over decision-making fosters a sense of responsibility for their learning journey. The teacher serves as a role model, embodying the autonomous behaviors she aims to inspire in these future teachers. I believe that in teacher education programs, collaboration and negotiation should be massively emphasized and experienced by future teachers, aiming at the implementation of these processes in their future classrooms. The course structure comprises four main units: self-knowledge, theoretical foundations, career planning, and a final project. Each unit

blends theory and practice through classroom discussions and activities. Let's discuss the first two units here.

The first unit centers on **self-knowledge and reflection regarding learning experiences**. Students explore their learning profiles, identifying their styles, strategies, and character strengths. Additionally, they write a narrative reflecting on their language learning journey, encompassing the first contact with the target language, difficulties, strengths, and aspirations. This journey of self-discovery broadens students' perspectives, potentially catalyzing the development of new autonomous behaviors throughout their academic journey.

The second unit delves into **theoretical background, particularly the process of autonomization and its individual, social and complex dimensions**. Here, we discuss the CDMA model, and it is elucidated by the trajectories of four research participants. Despite being first-year students, autonomy is studied through the lens of complexity theory, enabling learners to be aware of the innumerable factors influencing their autonomy development. It is an enlightening moment for learners, when they begin to understand the connections within their autonomy systems, empowering them to play an active role in their academic journey. Here are reflections from two students on the CDMA model:

This model will help me in my acquisition of English, because from it I got to know which elements interact with each other, how I can make them relate in a way that benefits my learning, and I learned the effect of knowing my identities, beliefs and not excluding the affective side of this process. (...) By holding all this knowledge, not only will I benefit from it, but in the future, I will drink from these waters to help my students in the classroom. (Fernanda)

The theory contributes with the notion that I must keep my learning system always in movement, that I must always seek strategies and do my best with the available affordances, even if they are the most adverse, I must observe myself and see how the elements behave, adjusting what is effective for my learning as a student or for the learning of my students, in the future, when I am in a teacher position. (Danilo)

These reflections highlight that theoretical insights into autonomy may enhance language learning management. Students demonstrate awareness of factors influencing autonomy and proactively make choices to sustain its dynamism. Moreover, they indicate their aspirations to cultivate autonomy within their future classrooms.

Over the years, integrating autonomy reflection and practice has yielded significant results among first-year students in the "Learning to Learn Foreign Languages" course (for more information, see Borges & Magno e Silva, 2024). Early exposure to theoretical concepts empowers learners to identify their needs and make informed decisions, thereby fostering dynamism in their autonomy systems. Therefore, access to CDMA may raise learners' awareness and encourage reflection on the factors that affect their personal learning trajectories.

Recently, I explored the CDMA model with a diverse group of graduate students enrolled in the Graduate Program in Creativity and Innovation in Methodologies in Higher Education (PPGCIMES) where I work at the Federal University of Pará. They were taking a course entitled "Autonomy in Learning and Teaching Contexts." Below, I share the insightful feedback provided by two of the participants:

I am confident that this model will enhance both my academic and professional career, as it has broadened my comprehension of the interconnected factors and movements influencing autonomy. Through this greater awareness, I feel empowered to make more autonomous decisions across various facets of my life. (Paulo)

Beyond its personal impact on my journey towards autonomy, this model has contributed to carrying out my research while maintaining a balance among my various identities. Moreover, it has significantly enriched my perception about the relationship between autonomy in the teaching and learning processes, intertwined with the cultivation of essential life skills. (Letícia)

Their feedback underscores the model's potential to enrich the learning experience across various fields of expertise, fostering reflection and awareness regarding the complexity of autonomy development. These graduate students moreover expressed a keen interest in applying the concepts they learned to diverse areas of their lives.

Andy: It's great that both first-year students and graduate students find such value in using the model to reflect on their own histories and practices, understand their trajectories in new ways, and see different possibilities for continuing to develop their autonomy in the future.

Your work is both enlightening and inspiring — a big thank you to you, Larissa, for being so generous in taking part in this interview and sharing your work and research.

Larissa: Thank you so much, Andy, for your interest in my research. It's been a pleasure to explore the complexity of autonomy development with you and the *Learning Learning* readers. As both a teacher and researcher living in the Amazonian context, I'm continually inspired by the transformative power of autonomy in students' lives. As a teacher educator, I see myself as one of the components of this wide system, contributing to the autonomy development of future language teachers and their future students, hopefully catalyzing a ripple effect of positive change. I hope CDMA may also inspire learners and teachers from diverse cultural backgrounds to explore autonomy from a complex, dynamic, and lifelong perspective.

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