

# Discussing the Chaos/Complexity Theory from an EFL Perspective: An Interview with Professor Larsen-Freeman

*Edgar Emmanuell Garcia-Ponce<sup>1</sup> & Irasema Mora-Pablo<sup>2</sup>, Universidad de Guanajuato, Guanajuato, Mexico*

## Abstract

For more than four decades, theoretical research has attempted to describe second language acquisition from static and linear perspectives. However, the Chaos/Complexity Theory put forward by Professor Diane Larsen-Freeman provides new insights into the nature and development of second languages. This email interview of Professor Larsen-Freeman was conducted in order to develop a better understanding of this theory. The interview also discusses how and the extent to which the tenets of the Chaos/Complexity Theory have some implications on teaching, learning and assessing English as a foreign language in Mexican classrooms.

## Resumen

Por más de cuatro décadas, teorías de la lengua han descrito la enseñanza y aprendizaje de segundas lenguas desde perspectiva estáticas y lineares. Sin embargo, la Teoría de Caos y Complejidad (*Chaos/Complexity Theory* en inglés) revela nuevas perspectivas de la naturaleza y el desarrollo de las segundas lenguas. Esta entrevista por correo con la Profesora Diane Larsen-Freeman fue realizada con el propósito de saber más sobre esta teoría. La entrevista también aborda las posibles implicaciones de esta teoría en la forma cómo el inglés como lengua extranjera se enseña, aprende y evalúa en salones de clase en México.

## Introduction



Photo taken from [http://www.soe.umich.edu/people/profile/diane\\_larsen-freeman](http://www.soe.umich.edu/people/profile/diane_larsen-freeman)

As language teachers and researchers, we have perceived how complex and adaptive the nature of English as a foreign language (EFL) can be over time. Such a complex nature of EFL has inevitably led us to face challenges concerning teaching, learning and assessing the language as discrete stages and using native-like standards. It is our belief that the Chaos/Complexity Theory put forward by Professor Larsen-Freeman provides new insights into language performance and development not only to understand the language, but also to design teaching and learning practices and assessments which are fairer for the EFL learner. In order to have a clearer perspective of this, we decided to contact Professor Larsen-Freeman. The interview below may be of interest of the *MEXTESOL Journal* readers who may have seen non-linear changes in their learners' language performance and development.

## Background

Professor Diane Larsen-Freeman holds an MA and PhD in Linguistics from the University of Michigan. Before working for the University of Michigan, she worked at the University of California Los Angeles and the Graduate School for International Training Institute. She then returned to the University of Michigan in January 2002 and she is currently a research scientist emerita at the English Language Institute.

Regarding professional recognition, Professor Larsen-Freeman has received numerous awards such as the emerita status at different universities. As well she has been given awards, including the Distinguished Scholarship and Service Award (American

<sup>1</sup> [ee.garcia@ugto.mx](mailto:ee.garcia@ugto.mx)

<sup>2</sup> [imora@ugto.mx](mailto:imora@ugto.mx)

Association for Applied Linguistics), Fulbright Distinguished Chair (University of Innsbruck, Austria), Honorary Doctoral Degree in Humanities (Hellenic American University, Athens), Heinle & Heinle Lifetime Achievement Award in 2000, among others. Professor Larsen-Freeman retired in December 2012 and currently she is a Visiting Senior Fellow at the Graduate School of Education at the University of Pennsylvania.

Some of her areas of research include the cognitive processes involved in second language acquisition, and English grammar as structural patterns that provide opportunities for making meaning and adapt within the communicative context. Regarding her publications, she is well known for a number of books such as *The Grammar Book: An ESL/EFL Teacher's Course* (with M. Celce-Murcia, also see the 3<sup>rd</sup> edition in Larsen-Freeman, Celce-Murcia, Frodesen, White, & Williams, 2015). In 2003, she published the book *Teaching Language: From Grammar to Grammaticing* in which she explores language from the perspective of dynamic systems. Such a perspective has motivated her to guide her research on the Chaos/Complexity Theory which provides new insights into language, its acquisition, and its use. She sees all three as complex, non-linear, dynamic processes (see Ellis & Larsen-Freeman, 2009; Larsen-Freeman & Cameron, 2008). This perspective also takes into consideration the individual agency and paths that learners take to promote language development (see Larsen-Freeman, 2006, 2009).

Motivated by her perspective of language use and development as a complex, dynamic and non-linear system, we were interested in knowing more about the implications of this perspective concerning teaching, learning, and assessing English as a foreign language. Therefore, we carried out an interview via email with questions and contacted Professor Larsen-Freeman to see if she would be willing to answer the open-ended questions. The interview was as follows:

**Interviewers:** Dear Professor Larsen-Freeman, the reason why we write you is because we would like to conduct an interview with you concerning the complexity of language development and the three language dimensions, i.e., complexity, accuracy, and fluency, which have been used to investigate this. We really appreciate your willingness to answer the questions. The first question is how did you start working in this profession? How did you become interested in investigating second language acquisition?

**Prof. Larsen-Freeman:** I started by teaching EFL in Sabah, Malaysia. It was 1967, and I responded to John F. Kennedy's call to service by joining the Peace Corps. As for second language acquisition, I had always been interested in how learning takes place. When I began teaching English, my fascination with learning became focused on the learning of second languages.

**Interviewers:** Can you please describe what your position about language proficiency is? Has this position changed over time?

**Prof. Larsen-Freeman:** I have come to understand language proficiency as being more complex than I had previously thought. I also no longer see it as something existing solely in an individual learner, i.e., we are differently proficient with different interlocutors. I also join others in seeing language proficiency as not being bounded; some would say that translanguaging or the natural use of two languages in order to communicate meaningfully is natural.

**Interviewers:** In foreign language contexts, we, as teachers, know that the exposure to and practice of the target language is sometimes limited. Based on this, what would

be the challenges for developing learners' language proficiency in EFL classrooms? What suggestions would you give to EFL teachers, such as the MEXTESOL readers, and learners in order to promote language proficiency?

**Prof. Larsen-Freeman:** I believe that it is in using the language that it gets learned. Of course, "using" includes the receptive skills, too. Given that class time is so limited, anything that can be done to encourage students to use English outside of the instructional period is welcome. Technology can be helpful in this regard. Some teachers have arranged for their students to have electronic "pen-pals." However, students will pursue their own interests and avenues.

**Interviewers:** In our teaching and learning context of Mexico, we have heard that other teachers claim that they promote fluency and accuracy while practising speaking and writing skills. However, two studies that we have conducted revealed that due to learners' agency (e.g., decision-making during task performance) and limitations in their attentional capacities, learners' utterances tend to be fluent and complex, or just accurate, but not the three. We know that these findings are corroborated by a high amount of cognitive research. Based on this, what recommendation would you give to EFL teachers concerning teaching practices so that learners are benefitted from practising and potentially developing complexity, accuracy, and fluency (CAF) simultaneously? Can this be attained?

**Prof. Larsen-Freeman:** From my own research, I have observed that students will chart their own developmental paths; some will focus more on fluency, others on accuracy or complexity. These foci will shift from time to time (please see my 2006 article in the journal *Applied Linguistics*). As far as teaching is concerned, it is a well-known aphorism that "we learn what we practice". Therefore, from a teaching perspective, giving time and attention to all three is desirable, though not necessarily simultaneously.

**Interviewers:** We are very interested in conducting a study that shows the nonlinear and adaptive nature of language development from a foreign language classroom perspective. Do you believe that this is possible to be carried out? What suggestions would you provide us with in terms of CAF instruments, classroom arrangements, data collection?

**Prof. Larsen-Freeman:** I certainly think that you can conduct such a study, and I encourage you to do so. As for the specifics of your study, I refer you to two publications:

- Larsen-Freeman, D., & Cameron, L. (2008). *Complex systems and applied linguistics*. Oxford: Oxford University Press.
- Hiver, P., & Al-Hoorie, A. H. (2016). A dynamic ensemble for second language research: Putting Complexity Theory into practice. *The Modern Language Journal*, 100(4), 741–756. doi: 10.1111/modl.12347

**Interviewers:** In your opinion, which calculations are the most reliable to understand the dynamism of CAF?

**Prof. Larsen-Freeman:** Again, I refer you to a publication, in this case, a book, which I cannot forward.

- Verspoor, M., Lowie, W. & de Bot, K. (2010). *A dynamic approach to second language development: Methods and techniques*. Amsterdam/Philadelphia: John Benjamins.

**Interviewers:** What is your opinion of language certifications (e.g., from the University of Cambridge, TOEFL (Test of English as a Foreign Language), IELTS (International English Language Testing System), etc.) which assess learners' language skills from a static perspective? Is it possible that these certifications show a clear and actual image of learners' language proficiency? In order to be fair with learners, what suggestions would you give regarding the assessment of learners' language skills following your views in the Complexity Theory (2009)?

**Prof. Larsen-Freeman:** There are at least two problems with assessing learners' language skills from a Chaos/Complexity Theory perspective. The first is that it usually involves a one-time sampling, which is a mere snapshot in a dynamic process. How learners might perform at another time in another context could be considerably different. The second issue is that the assessment is usually done from the perspective of the target language. Learners are assessed in terms of what they do not know, rather than what they know. Instead, I recommend self-referential assessment, where learners are assessed for what they can do now that they couldn't before (see Larsen-Freeman, 2014). This form of assessment is not simple, but it is fairer and more valid, I believe.

**Interviewers:** Do you have any recommendations or advice that you would give EFL teachers in Mexico who sometimes struggle to develop learners' language skills?

**Prof. Larsen-Freeman:** Teaching EFL is hard work, and it is often not very rewarding financially. However, you yourselves can be wonderful role models of success to your students. Moreover, it seems to me that the world needs now, perhaps more than ever before, to encourage intercultural dialogues among people. English is not the only medium through which these can occur, of course, but it is a widely available vehicle. Therefore, yours is hard work, but very important work.

Professor Larsen-Freeman's responses can have important implications in the way English as a foreign language is taught and learned in classrooms in Mexico. Despite numerous findings reported in studies in other teaching and learning contexts (see, for example, Ellis, 1985, 1987; McLaughlin, 1990; Pienemann, 1998; Young, 1991), there is still little research discourse which demonstrates the complexity and dynamic nature of language performance and development in Mexican EFL classrooms. Nevertheless, it is possible that the exploratory study that Professor Larsen-Freeman conducted in 2006 may be useful to understand how English is developed by learners and assessed in EFL classrooms in Mexico. In her study, she included five intermediate learners from the People's Republic of China who were asked to carry out the same untimed speaking and writing tasks four times over a period of six months. In brief, she found that the following aspects have an impact on language performance:

1. Variation, non-linearity, and competition of fluency, complexity and accuracy;
2. Different learners' orientations in terms of fluency, complexity and accuracy;
3. Ascending levels of fluency, complexity and accuracy at group level, but a great amount of individual variation; and
4. Context as a factor that highly influence the patterns of the three dimensions.
5. (Larsen-Freeman, 2006)

As suggested above, it thus seems that theories which view language from a static perspective do not easily lend themselves to explanations of language performance and development. Thus, as argued by Professor Larsen-Freeman (2006), we need to adopt a dynamic perspective of language teaching and learning. The evidence that the

learners' goals and intentions, as well as the learning tasks and contexts, are important factors that influence language performance and development adds weight to her argument (see Cameron & Deignan, 2006; van Lier, 2004). This dynamic view of language performance and development would allow us to design teaching activities and assessments which do not expect EFL learners to develop the language in static and discrete stages. Instead, we would be able to carry out comprehensive and fairer teaching practices and assessments centred on the learners' affordances, rather than what they do not know regarding the foreign language. Following the claim that the dynamic nature of language performance and development is context-sensitive, there is need to conduct research on the nature of the foreign language in Mexican classrooms from dynamic lenses.

Finally, we are grateful with Professor Larsen-Freeman for her time and willingness to answer the above questions. We hope that this interview is useful for the *MEXTESOL Journal* readers who are part the English teaching profession.

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