

Interview

From English Major to Statistics Expert and Language Education Researcher: An Interview with Chuang Wang

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Abstract

This article presents an interview with Professor Wang, a renowned researcher in statistics and language education. He shares his research journey, from choosing English as his major to becoming passionate about statistics after assisting his supervisor with data analysis. He also discusses his research findings and implications for English teachers and junior researchers, as well as his experiences and advice as an academic leader and a journal editor in the USA and China. The interview provides valuable insights for researchers and practitioners in the field of language learning and teaching.

Keywords

Statistics, language learning, self-efficacy, academic leadership, journal editing, Macau

I would like to start off on a more personal note, Professor Wang. May I firstly invite you to talk (briefly) about your academic and professional life highlighting how you have become interested in your focal areas (e.g. Quantitative Research Methods / Applied Statistics / Applied Linguistics) of research?

Let's start with applied linguistics. I was interested in the English language when I was in middle school. I became fascinated with the English language because that was the first foreign language I learned. I believed that it was cool to be able to speak a language other than my native language. I built up my self-esteem and self-confidence gradually with my success in learning English. My performance on English language tests was almost always number 1 among all my cohorts in my middle and high schools. When it was time for me to choose my major at college, I decided to apply for the English for Science and Technology program at Xi'an Jiaotong University as an engineering student with a very high performance in mathematics. I did not choose mathematics as my major because I did not know what I could do with a degree in mathematics. During my doctoral study at the Ohio State University in the United States, I was asked to do some data analyses for my supervisor, which opened the door of statistics to me. I started to take statistics courses to help me analyze the data but soon was attracted by

the power of statistics. I took more statistics courses in the statistics department and received a master's degree. After my graduation from the Ohio State University, I became an assistant professor at the University of North Carolina at Charlotte teaching quantitative research methods. The more I taught quantitative research methods, the more I was attracted by it because I felt the joy of helping my students understand research design and use statistics in their teaching.

You have conducted a lot of research on individual differences (e.g. self-efficacy, motivation, enjoyment, and anxiety) related to English Education / Language Education. Can you tell us a bit more about what got you interested in these specific topics, what your research has found, and how your findings can help teachers and learners?

I became interested in individual differences when I was working for my supervisor, Dr. Stephen Pape, at the Ohio State University, on a grant with a focus on middle school students' use of self-regulated learning strategies in solving mathematics word problems. Since I had quite a few years of experience teaching English and had a master's degree in applied linguistics, I brought up the idea to investigate English language learners' use of self-regulated learning strategies in learning English. With his encouragement, I explored more related topics, such as self-efficacy, motivation, resilience, and anxiety. This is how I got into this field.

Results from my research suggested that affective attributes such as self-efficacy and motivation as well as strategic behaviors such as self-regulation are related to academic achievement. In particular, English language learners with a strong motivation and high level of self-efficacy are more likely to take challenges, be persistent when they meet difficulties, and feel less anxious when studying the English language. My studies also suggest that higher achievers in the English language acquisition are more likely to use a variety of self-regulated learning strategies when pursuing their academic goals.

The implication of my research findings suggest that teachers of English should recognize individual differences and help their students develop self-regulated learning strategies that best enhance their learning of the language.

Most of your empirical research has focused on self-efficacy. What does this individual difference variable refer to? Why is it important? How can English language teachers enhance EFL/ESL learners' self-efficacy (if at all possible)? How can English language learners themselves improve their own self-efficacy (if at all possible)?

Self-efficacy is close to self-confidence but different in that it is more context-specific, task specific, and malleable. It refers to one's beliefs in how well he/she can accomplish a specific task with the assessment of his/her own capabilities. For example, "My English is good" is not self-efficacy, but "I can introduce myself in English" is self-efficacy. It is important in learning because students are more likely to persist in learning and are more likely to employ self-regulated learning strategies with high levels of self-efficacy.

English language teachers can enhance EFL/ESL learners' self-efficacy through the four sources of self-efficacy identified by Bandura: mastery experience, vicarious experience, feedback, and emotional states. In particular, teachers of English are also encouraged to help students enhance their self-efficacy beliefs by giving students tasks that they can achieve so that they can build up their confidence in learning, asking them to observe their peers performing on the English language tasks, giving them constructive feedback, and making the class more fun so that students can learn English in a relaxed and joyful atmosphere. Language learning should be fun.

Based on your research concerning EFL/ESL learners' individual differences, can you please share with us the takeaways?

I would like to share two messages: (1) there are individual differences. Teachers are encouraged to recognize individual differences of their students and help individual students enhance their self-efficacy beliefs so that they are motivated to learn and persist in learning; and (2) strategies matter. There are certain strategies that are associated with success in academic achievement, but the most important takeaway message is that students need to be the active agent. They have to be able to set their goals, reflect on their performance, and adjust their goals and strategies when necessary. Spending time alone is not enough for learning.

When your research subjects included very young learners, did you have any difficulties/challenges in soliciting the cooperation of your research subjects? How did you overcome these difficulties/challenges?

Yes, I worked with first-grade and second-grade students in elementary schools for my dissertation and encountered quite a lot of challenges. For example, young learners would not understand the Likert scale in a survey study. I used some smiley faces for them to indicate endorsement of my statement. To observe their use of self-regulated learning strategies in learning English, I videotaped them during their play and asked them follow-up questions based on my analysis of their behaviors on the video. The attention span of young learners is short, so I had to use multiple visits instead of a single visit to their families.

Much of your research concerns the instrument validation/development/modification. Many novice researchers (e.g. postgraduate students) seem to believe that creating their own research instruments (e.g. a questionnaire) is easy. In connection with this belief, can you please provide some tips by means of sharing several concrete examples?

I have to say that creating one's own research instrument is not easy. For example, when I was creating my self-efficacy questionnaire. I did a lot of research into this topic before creating the items. I reviewed all existing instruments that were relevant and had to justify why none of them could meet the needs of my study. After the justification of the needs, I adapted some items from existing instruments and created some new items, piloted the questionnaire with a sample, interviewed some students and teachers of English for their opinions on the appropriateness and easiness-to-understand. Then, I did a series of studies on the psychometric properties, such as reliability, validity, invariance across gender and culture, item difficulty, item discrimination.

Prior to coming to Macau, you worked in University of North Carolina at Charlotte (UNC – Charlotte, USA), for 15 years, where you had served as Director for the Ph.D. Programme in Educational Research, Measurement, and Evaluation. Can you share with us the interesting/challenging bits of your experience of working in the USA?

Sure. I worked in the USA for 15 years at UNC Charlotte and served as the Inaugural Director for the Ph.D. program in Educational Research, Measurement, and Evaluation. Overall, I enjoyed working in the USA because I could focus on my research and teaching with the support from my university and

family. My university provided me a platform and resources for conducting research studies that fall into my own interests. I had a freedom to choose whatever topics I would like to explore. For example, I was interested in learning English as a second language and digital citizenship because I would like to help my own children in the schools. I was able to secure funding to support my research and my publications in these fields, which counted toward my tenure and promotion. I have a feeling that I was paid to do the things that I like. That's why I really enjoyed my work in the US. The challenges that I met working in the US was my identity as a Chinese scholar. As many other Chinese scholars may agree, we were viewed as hardworking and intelligent. Most American colleagues, however, did not view me as a leader. That was why I tried to lead the doctoral program in my department in order to show my leadership skills. The biggest challenge that I met while working in the US is the opportunity to become a leader as a Chinese scholar.

In your current position as Dean of Faculty of Education in the University of Macau (Macao SAR, China), do you need to develop/lead a similar doctoral programme in the broad area of educational research? What are your visions for the new programme(s) at your current institution? What challenges do you need to address?

Yes, as soon as I took the position as Dean of the Faculty of Education in the University of Macau, I started a new doctoral program: Doctor of Education (Ed.D.). That program is different from a Ph.D. program in that it is more practice-oriented and targets educational leaders. We have now successfully recruited two cohorts of 60 Ed.D. students in our faculty. My visions for this new program are to make a connection between theory and practice and to train educational leaders for Pre-K-12 schools in Macau, the Greater Bay area, and China.

You have vast teaching, research and administrative experiences spanning over your academic career. How compatible do you find these different roles? To what extent is it necessary for a novice faculty member to get engaged in research and administration in addition to teaching?

We all need to keep a balance between teaching, research, and service. To me, these are all important and connected. For example, I teach statistics to education major graduate students and I use statistics in my research and my review of manuscripts for journals. I used to spend 50% of my time on research, 30% of my time on teaching, and 20% of my time on service when I was working as a faculty member. However, I now spend approximately 60% of my time on service as the Dean of the Faculty of Education in the University of Macau.

In my opinion, a novice faculty member should spend most of the time on research in addition to teaching. Service is not a priority for a novice faculty member, so some minimal required service for the department and university is sufficient. I do not encourage a novice faculty member to be actively engaged in community service.

You also are an editorial member of quite a few international applied linguistics journals. What are some of the challenges you have faced in your editorship member role?

The biggest challenge is to find responsible reviewers for the journal. Another challenge is the lack

of quality papers at the beginning. I worked as the Editor for a new journal and I tried very hard to encourage people to submit their quality papers to me. This is like a chicken-and-egg dilemma. In order to attract scholars to send their quality papers to a journal, the journal needs to be well-recognized in the field. However, a new journal needs quality papers to become recognized in academia.

Thanks to the globalization, we are having more and more contact with people who are culturally different. In your opinion, what are the important factors for successful cross-cultural communication? Does English education play a role in communicating Chinese opinions/experiences/solutions to the world?

Emotional intelligence or communication skills are important for successful cross-cultural communication. We need to respect people from a different culture and make sure we understand their ways of communication and behaviors. English education plays a significant role in communicating Chinese opinions/experiences/solutions to the world because English is the dominant media of communication in the world.

Finally, what is on the horizon for you? Are there any particular areas of teaching and research that you are interested in and excited about?

I am currently interested in experimental or quasi-experimental studies to examine the sources of self-efficacy beliefs and the impacts of self-efficacy beliefs in learning English as a foreign language. I hope these experimental or quasi-experimental studies may help answer some questions about the causal relationships between self-efficacy and other affective measures and academic achievements.

Lun Peng (Gloria) is a journalist and a researcher of *China Daily*, China. She serves as the Editor-in-Chief of the Global English Education China Assembly Special Issues/Columns. She also serves as a supervisor for master's degree dissertations at Hangzhou Dianzi University (China). She received her MA in TESOL with Applied Linguistics from the University of Central Lancashire, UK. Before joining the China Daily media group, she was a high school English teacher in Beijing, China. Her research interests include second language acquisition, teacher professional development, adolescent reading research and media literacy.