Daniel Jinguji Personal History Statement

Work History

Most of my professional life has been spent as an educator: first in industry, at Boeing and Microsoft, and more recently in academia. With a Master of Science in Computer Science, I have been involved in teaching computer-related topics, primarily programming and software development.

While at Boeing, my primary job was in course development and delivery in the in-house education and training organization for Boeing Defense and Space Group. The chief teaching platform we used was VAX/VMS, from Digital Equipment Corporation (DEC). I was also a regular presenter at the DEC User Society (DECUS) regional and national symposia, offering day-long, pre-symposium seminars in a variety of programming topics, as well as 30-minute long conference talks.

While at Microsoft, most of my time was in support of education regarding programming tools. Initially, I was hired as a senior subject-matter expert at Microsoft University (MSU), the educational "arm" of Microsoft which was formed to teach others how to write programs for Windows. With my educational background from Boeing, I also served as an instructional designer in MSU. From there, I moved to the user education (documentation) group for the primary programming tool, Visual Studio. In both of these organizations, I commonly supported / presented / represented our products at trade-shows and educational conferences, both national and international.

In all of this, the goal was to take some body of technical information and present it in an engaging, memorable, and compelling way.

A Research Question

Since the dot-com melt-down in 2000/2001, I have been teaching in academia, primarily at North Seattle Community College (NSCC). The students I teach are generally highly interested and engaged in the topic, since their future, either employment or admittance into their chosen academic program, depends on their success in these classes. Even with this relatively high degree of buy-in, student performance varies all over the board. The anecdotal evidence I have doesn't suggest that this variation in student achievement is directly attributable to differences in native intelligence. There does seem to be a "something" that enables some students to address programming problems more successfully than others, but I could see no structured means of exploring what the nature of that "something" might be.

These questions are of even greater interest to me now, since NSCC is in the final stages of applying to offer a four-year Bachelor in Applied Science degree in Application Development. As you probably know, the BAS degree is a professional/technical degree designed to supplement the two-year Associate in Applied Science degrees in those areas where the AAS degree has not proved to be sufficient preparation for entry into the workforce even though there is a demonstrated need in the workplace for more people. I have personally been very involved in the process of curriculum development for this proposed program. Since the core of application development is creating computer programs to address novel problems, I am again confronted with the question of the problem solving process in computer programming.

Graduate Studies

As a state employee, I have taken advantage of the tuition-exemption program to pursue a long-standing interest of mine, Linguistics: how a sequence of arbitrary symbols can be used to communicate, that is, to transfer thoughts and feelings from one mind to another. In the process, I have found that I am an *amateur* linguist in the classic sense of the term, a lover of the field, but without the drive or desire to make it my profession. However,

my studies in linguistics did open my eyes to the on-going research in the area of language acquisition. It dovetails very nicely with my personal leanings in linguistic inquiry, more toward applied linguistics, the application of the science in everyday life, rather than the pursuit for linguistic truth as an end unto itself. In this light, the Master of Arts in Teaching (English to Speakers of Other Languages) (MATESOL) program at UW was a natural next step, which is the degree program I am in currently.

I started working on the MATESOL program by taking one of the core classes last spring, ENGL 574, Research Methods in Second Language Acquisition. It's an ambitious course designed to give students some familiarity with a wide variety of research methods in applied linguistics and TESOL. It examined epistemologies, strengths, and weaknesses of various approaches, including ethnography, action research, case studies, questionnaires and surveys, interviewing, discourse analysis, and classroom observation. As you can see, the primary thrust of the course was an examination of qualitative research methods within the context of language acquisition.

Structurally, the course was composed of two parts. The first two-thirds of the course explored different qualitative methodologies. During this period, in each two-hour class session, we would focus on a different methodological approach, examining different research studies which employed these various methods. The class sessions typically included some large-group expository work exploring the appointed method, followed by small-group discussions of the readings. At the same time, we formed working groups of two to four students to design and carry out a small, quarter-long project of original research using one or more of the methods presented in the course. During the second portion of the quarter, the classroom discussion centered on presenting aspects of our own research projects to the class and exchanging critical, constructive feedback with our peers.

Qualitative Research

This class was a transformative educational experience for me. First, it was my initial encounter with post-positivist points of view. But, more importantly, qualitative research methods provide a means to explore and document the process of problem solving which had seemed so opaque to classic quantitative methods. That is, they open the door to research that area of intense interest to me: How do people, particularly adults, solve problems? Is it teachable? And if so: How can it be taught effectively?

Learning Science

I had happened upon the Learning Science webpage some time ago and was very intrigued by what I found there. The old website seemed to be describing my interests to a tee. However, at that time, I couldn't see any means to research my area of interest: the acquisition of problem solving skills for software development by adult learners. Now, my recent exposure to qualitative methods has changed my perception about how reasonable and tractable this research area could be. All of this comes together to prompt this application for the PhD program in Learning Sciences.

I am excited by the possibilities that this offers to explore the acquisition of problem solving skills in adult learners. Also, I believe that my varied background will help me contribute to the learning experience of the other students in the program, as well as grow personally and professionally through my interaction with faculty and fellow graduate students and through research.

Thank you for the attention to this application. Please do not hesitate to contact me if I can provide any additional information that may help you in coming to a decision.

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