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XILING WANG

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ROLE

OF

ATTITUDES

IN

**TEACHING TECHNICAL
COMMUNICATION**

A STUDY OF STUDENTS, FACULTY, AND ADMINISTRATORS
IN A NORTHWEST CHINESE UNIVERSITY

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韩一生

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To my dearly beloved father,
Zhengguo Wang

王正国

who would have loved this book.

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This dissertation is dedicated to my dearly beloved father, who was observing me from heaven with his unwavering support and love.

Preface

*by Thomas Barker, Professor
University of Alberta, Edmonton, Alberta, Canada*

The work of program design and implementation in the area of communication has followed a predictable path. In work by Cybela and Greer, for example, the process is one of identification of academic or programming needs, followed by investigations into the target audience, learning objectives and outcomes, subject matter, and then implementation and evaluation stages. Such an approach follows theoretical directions that also support cognitive inquiry and other research and development theories. The virtue of the traditional approach is that it is based on the analytical components of learning using a systems approach. The result is consistent identification of the areas that make the most difference in program design. In the area of technical communication, and the design of programs in settings in Chinese universities, the traditional approach has resulted in comprehensive analysis of existing programs and how technical communication could be integrated into existing English for Special Purposes programs and other English language and writing oriented programs. Wang's work in program design and implementation, on the other hand, supplements the work done using the traditional approach

by bringing elements of attitude research to bear on questions of cultural acceptance.

Because cultural acceptance of programs is such a key issue in introducing new programs, attitudinal studies hold the promise of increasing the chances of acceptance. On the one hand, attitude research delves into the phenomenon of acceptance and agreement, which suggests a new area for inquiry for technology diffusion. Attitude research explores the question of acceptance in ways that provide useful windows into potential behaviors. For many researchers, attitude studies provide insights into interpersonal and social contexts. Such is the results of Wang's work in attitudes towards technical communication programs. The pages that follow elaborate on Wang's approach and make a strong case for attitude research as part of the program developer's toolbox.

Wang's work focuses on the role of attitude research in the often murky process of course and program design in technical and professional communication in higher education. As such, it takes a new and interesting perspective on research in program design. Before this research, investigations into success factors in program design were based on so-called "deficit" models in which assumptions about curriculum, instructional planning, and program administration relied on the concept of information needs rather than conceptual and administrative fit. A common result of this research, based on the assumption of shared attitudes and beliefs, was a program that worked for some but not for others, and that was ill suited to the demands of all levels of academic stakeholders. Wang's research shows a different and highly nuanced view of this complex knowledge situation, in which attitudes and beliefs of administrators, faculty, and students complement one another, but do not always correlate.

By using attitude research to investigate this complex knowledge matrix, Wang is able to easily tie attitudes with course and program design factors. The result, as the reader will see, is that Wang has opened up a new avenue of research, going beyond simplistic contextual analysis, and created the prototype of a powerful investigative tool. What is more, Wang bases her tool on extensive quantitative research with exceptionally high N values and a thorough statistical analysis. As she unfolds the implications of the study for the design of courses and programs at XISU, she can, thus, present rigorous methods and dependable results, just the kind of valuable professional research skills required for educational program developers in a variety of contexts.

April 13, 2016

Thomas Barker

Preface

*by Dr. Sam Dragga
Texas Tech University*

On my initial visit to China in 1997 with a delegation of specialists in technical communication, we discovered that the field of technical communication was in its earliest stages. In meetings with teachers of language, science, and engineering at universities in Beijing, Guilin, and Suzhou, we ordinarily were asked to define the field, explain the function of the profession, and justify the teaching of technical communication. No academic programs in technical communication existed at the time. Instruction, if available, was almost entirely ad hoc and extracurricular, one-on-one between a helpful instructor and a diligent student. Information materials that might be considered technical communication were written by scientists and engineers chiefly for scientists and engineers: that is, by specialists for specialists instead of for people adapting technical and scientific knowledge to create products and services for the public or for people using the resulting products and services. Communication about science and technology to the wider population was through mass media—books, magazines, newspapers, radio, and television—usually with the intention of building public understanding and support for

the advances of science and technology. Scientists and engineers received no special training in this "popularization" of technical information, but were assisted by non-fiction writers, journalists, editors, translators, photographers, and film directors.

This was 20 years ago: science and technology has changed, technical communication has changed, and China has changed.

Xiling Wang's *Role of Attitudes in Teaching Technical Communication* recognizes this change and offers a solid foundation for building academic programs in technical communication.

Dr. Wang's research is a sophisticated and ambitious inquiry, integrating quantitative and qualitative methods (including a survey of approximately 1200 students, faculty, and administrators) in order to identify and explicate major challenges in the introduction of technical communication programs to colleges and universities in China. Sensitive to the pedagogical and ethical implications of adapting American (and English-language) writing programs and practices to higher education institutions in China, Dr. Wang devised probing questions in a written questionnaire that was reinforced by selective oral interviews. She compiled the answers, analyzed findings for statistical significance, and identified evocative correlations; she has here summarized the findings and generated conclusions and recommendations pertinent to program design. The resulting book, I believe, will be important for its findings about China as well as for its rigorous research methods—a potential guide for investigating the feasibility of developing technical communication programs worldwide.

Dr. Wang also here demonstrates that she is as diligent and dedicated a teacher as she is a productive researcher. She displays a striking grasp of rhetorical principles, a contagious enthusiasm for teaching, and a willingness

to experiment with innovative technologies and pedagogical practices. She has taught technical communication in the United States and in China and brings a multilingual and multicultural perspective to the design of academic programs.

This book offers the insights necessary to assure that education in technical communication is as thorough as it is efficient and equips students with the knowledge, skills, and agility to address the important challenges and extraordinary opportunities of the growing society and historic civilization that is China.

March 21, 2016

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Abstract

This dissertation is a quantitative study of the attitudes of Chinese students, faculty, and administrators toward major issues in developing a technical communication course. The purpose of this study is to examine the role of attitudes in assessing the feasibility of teaching technical communication and also in course and program design. Using an on-site attitude survey of three groups of people in a northwest Chinese university, the author intends to answer two research questions: 1. Would an attitude survey be useful to study the feasibility of teaching technical communication? If yes, how would one use an attitude survey to determine course and program design? 2. Is an attitude survey of the type used in the study a valid and generalizable tool for others to use in course and program design?

Five categories of the attitude survey results—globalism, culture, essential skills, context, and level—demonstrate to course designers how the answers to a questionnaire contribute to the setting of five concrete learning outcomes that are crucial to course design in technical communication. Learning about the views of students, faculty, and administrators toward technical communication

regarding various issues helps identify a number of important elements that shape the curriculum because attitudes reflect beliefs and predict behavior. Well-constructed outcomes derived from the responses of the three populations are highly likely to lead to an effective course that will meet the demands of the three important academic stakeholders. This inquiry has explored a new, practical, and systematic approach to the use of attitude research as an investigative tool for course and program design in technical communication in higher education.

Table of Contents

CHAPTER I INTRODUCTION	001
CHAPTER II LITERATURE REVIEW	010
2.1 A Justification for My Research in Attitudes	010
2.2 A Review of Technical Communication History	016
2.3 The Rhetoric of Writing in Digital Spaces.....	021
2.4 Ethical and Cultural Issues Related to Technical Communication	028
2.5 Technical Communication in China	033
2.5.1 <i>China's Need for Technical Communication</i>	034
2.5.2 <i>Current State of Technical Communication Instruction in China</i>	036
2.5.3 <i>Reasons for Examining Technical Communication Instruction in a Northwest Chinese University</i>	037