Quan Zhang • Hong Yang
Editors

Pacific Rim Objective Measurement Symposium (PROMS) 2012 Conference Proceeding
A Welcome Message

from
Chairman of PROMS
Professor Rob Cavanagh (PhD)
Chairman of the Board of Management
Pacific Rim Objective Measurement Society

On behalf of the Board of Management of the Pacific Rim Objective Measurement Society, it is my privilege and pleasure to welcome delegates to the 2012 Symposium in Jiaxing, Zhejiang Province, P.R. China. This is an auspicious occasion and marks the first time PROMS has been held on the Chinese mainland. I particularly need to sincerely thank Professor Quan Zhang (Ph.D.), the Dean of the College of Foreign Studies and Director of the Institute of Language Testing at the University of Jiaxing for his initiative and work in making PROMS happen. Also the members of the local committee, especially Professor Hong Yang and Professor Tao Danyu. The venue and organisation are both superb, we look forward to a highly enjoyable and intellectually stimulating program of social and academic events.

The notion of objective measurement, a core construct in Science and a guiding principle in the formation and operations of PROMS, concerns properties of measures. It is not necessarily the positivist view of nature and the world in which there exits an independent reality. Rather, it is about invariance, measures functioning independently of the location and time of their administration. For example, in the Human Sciences, a test of reading that assigns the same score to boys and girls with the same reading ability, to children from different countries with the same reading ability, and to children with the same reading ability tested at different times. A second feature is measurement being grounded in well-established theory, and data being collected to indicate attributes of persons or phenomena anticipated by this theory. This is in stark contrast to approaches that develop models from existing data, model-to-data fit. A third feature of objective measurement is the attention given to data on persons and attributes of the phenomenon of interest that do not
comply with the requirements of the measurement model. It is these anomalies that provide the impetus and focus of future research. When data fit a Rasch model, it is highly likely that these three features of measurement are manifest in the design and administration of a measure.

The foundation of PROMS and the annual Symposium are intended to inform researchers in the Pacific region about the practices and benefits of objective, and particularly, Rasch measurement. The Society supports applications in the fields of Business, Counselling, Economics, Education, Health Care, Language, Measurement, Psychology, Quality Assurance, Statistics and Strategic Planning. The Society advocates measurement practice that contributes to individual, community and societal well-being, and the public good, in the Pacific region.

The Society is supported by senior academics, researchers and scientists from Asia, Australia, North America and Europe. All share a vision of sustainable development in the Pacific that is informed by meaningful data and meaningful interpretations of these data. Also, they have a common concern about the inadequacies inherent in many decades of Western Human Science measurement and the potential for these shortcomings to be replicated elsewhere.

Welcome Message from the President of Jiaxing University

Xianmin Xu

Good morning!

Dear and respected Chairman ROB Cavanagh,

Dear and respected Professor A. Jackson Stenner, Professor Trevor Bond, Professor Magdalena Mo Ching Mok, Distinguished guests, ladies and gentlemen.

First of all, on behalf of Jiaxing University and on my personal behalf, I’d like to extend our warmest welcome to all the participants and VIP guests here today!

PROMS is the world’s largest international objective measurement symposium mainly concerning Rasch Model. Over the past 8 years, it has been held in many parts of the Pacific Rim. Every year hundreds of experts and scholars attended the symposium. This year it has made its debut in Jiaxing, China Mainland. This shows that the domestic scholars and their foreign counterparts in the Rasch model field could have more opportunities to cooperate and communicate. It also provides an excellent platform of exchange and discussion for the application of Rasch Model and other related studies. I strongly believe the symposium will play a significant role in promoting China’s research in Rasch model and other related fields.

Ladies and gentlemen, I’d like to take this opportunity to let you know something about our university. Jiaxing University has a long history, but it is the accredited institute of higher learning operating under Zhejiang Provincial Department of Higher Education ever since 2000. We adhere to the scientific development of our overall school strategic planning, which is characterized as “high-level, multi-layer, local-based, and application-oriented”.

vi Foreword
With the university motto “Act with integrity and probity, pursue academics industriously and rigorously” as its core, we are sparing no efforts to carry forward the “Red Boat Spirit” and creating a campus culture characterized with “Shiing-shen”. Our graduate students are appreciated by the society and many alumni have become experts and celebrities in all walks of life across the country, contributing to the university’s fame and far-reaching influence in the society.

Jiaxing, where our university is located, is a famous historical and cultural city of the country, the cradle of South China culture prevailing in the south of the Yangtze River, and it is also the birthplace of the Communist Party of China. With Shanghai in the east, Suzhou in the north, Hangzhou in the west and Hangzhou Bay in the south, Jiaxing is situated in the southeastern coast of China, which happens to be the center of the Yangtze Delta Area. Historically, Jiaxing was well developed in education and learning was greatly favored. The society was very peaceful with flourishing culture and prosperous economy. It had been recognized long before as “a land of abundance” as well as “the home of silk”.

Professor Paul Ching-Wu Chu, a worldwide renowned physicist and the former President of Hong Kong Poly U, is now acting as the honorary president of Jiaxing University. Apart from this, we have one candidate for a Talent Project of New Century at national level, two specially invited professors who are titled as “Qianjiang Senior Talents” of Zhejiang Province. We also have one key innovation team, six distinguished teachers, four teaching teams all recognized at Zhejiang Provincial level.

Today we have more than 20,000 full-time undergraduate students, approximately another 10,000 registered adult students, about 100 long-term and short-term overseas students, and over 80 post-graduates under the joint master programs with other universities in Zhejiang Province and other provinces. Currently, we have more than 1,500 faculty members, of whom more than 1,000 are full-time teachers and more than 430 have senior professional titles, and 112 are full professors. Over 200 teachers are Ph.D. holders.

Our university has established 17 teaching units offering 45 four-year programs which cover nine categories of disciplines including economics, law, education, literature, science, engineering, medicine, management and art. We have two special construction projects at national level, eight provincial-level key disciplines and ten provincial-level key majors. Since 2006, we have undertaken 260 national-, provincial-, and ministry-level research projects, among which 16 projects have won provincial-, ministry-level rewards in teaching and scientific research. More than 1,600 papers have been published in core journals. More than 1,200 papers have been cited by the search systems such as SCI, EI, ISTP, etc.

Our university has three campuses; the total area is about 113.33 ha besides other 153.55 ha under planning. The total floor space of the university amounts to 620,000 square meters. Our picturesque campuses won the reputation of “Safe and Peaceful Campus” of Zhejiang Province, “Campus of Civilization” of Zhejiang Province, and “Advanced Unit in Landscaping” of Zhejiang Province. Apart from this, we have also established a modern experiment system with nine experimental centers as its basic framework, one experimental teaching demonstration center at national level, five provincial-level experimental teaching demonstration centers.
and five municipal-level key laboratories. Our libraries hold over 1.48 million paper volumes as well as 1.2 million electronic volumes of books.

We encourage active participation in international academic exchanges and cooperation of various kinds so as to provide a wider platform for further development. So far we have established institutional collaborations with 23 universities in the USA, Germany, France, the UK, Denmark, Russia, South Korea and Japan, etc. We have joint master programs with foreign universities. We send students abroad for master degree and also for exchange students with partner universities. Each year we financially sponsor our faculties for visiting scholars abroad.

I was told that apart from our university, we have other sponsors who support this symposium in one way or other. They are MetaMetrics, Australia EAA, ETS, Springer, Beijing Foreign Language Teaching and Research Press, Higher Education Press and Shanghai Foreign Language Teaching Press. I’d like to express our heartfelt thanks to them all!

Finally, I wish PROMS2012 Jiaxing, China a complete success and I wish you all every success in your career. Have a nice stay in Jiaxing.

Thank you!

Welcome Message from Quan Zhang

from
Prof. Quan Zhang Ph.D.
Dean, College of Foreign Studies
Director, Institute of Language Testing
University of Jiaxing, Zhejiang Province, P.R. China

Entrusted by the Board of Management of the Pacific Rim Objective Measurement Symposium (PROMS), I’m very much delighted to announce that PROMS2012 will be held on campus of Jiaxing University, Zhejiang Province, P.R. China from August 6–9, 2012, with pre-conference workshops scheduled on 4–5 August, 2012, and post-conference self-arranged events scheduled on 10 August, 2012.

Over the past years, PROMS has been hosted in many parts of the Pacific Rim, in Singapore, Malaysia, Hong Kong, Taiwan and Tokyo, which has greatly promoted the research of and contributed to the development of Rasch Model in one way or another. It is the first time to be held in Jiaxing, China Mainland. Therefore, College of Foreign Studies, Jiaxing University is proud of that and are confident to offer good arrangement to make PROMS2012 more successful.

As early as in 1980s, the ideas and concepts regarding IRT was first introduced into China by Prof. Gui Shichun, my Ph.D. supervisor, and it is Prof. Gui who first conducted with great success the 10-year long (1990–1999) Equating Project for Matriculation English Test (MET) in China. MET is the most influential entrance examination for higher education administered annually to over 3.3 million candidates then. The Equating Project won recognition by Charles Alderson and other foreign counterparts during 1990s. Academically, those were Good Old Days
for Chinese testing experts and psychometricians. Then for certain reasons, the
equating practice abruptly discontinued. Therefore, in China nowadays, the appli-
cation of the IRT-based software like BILOG, Parscale, Winsteps, Iteman 4 and
others to real testing problem solving is confined within an extremely small ‘band’
of people.

In this sense, I should say PROMS2012 thus meets an important need in that it
provides an excellent introduction of IRT and its application. And anyone who is
seriously interested in research and development in the field of psychometrics or
language testing will find such a symposium and related workshops to be an
excellent source of information about the application of Rasch Model.

PROMS2012 will follow the practice of the last PROMS, focusing on recent
advances in objective measurement and providing an international forum on both
the latest research in using Rasch measurement and non-Rasch practice. I’m sure
the pre-conference workshops, parallel sessions, distinguished researchers and
practitioners and post-conference self-arranged events will greatly encourage par-
ticipation and all our participants would definitely share the benefits from it. In
particular, I should mention that PROMS 2012 Jiaxing will benefit postgraduate
students from developing countries and researchers who seek to use the Rasch
Measurement in their research activities.

By the way, Jiaxing is a beautiful city in the Southern part of China Mainland.
Here the lake, the bridge, the pavilion, the pagoda, the food, the people are inviting!
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