EXPLORING STATISTICAL LITERACY IN NORTHEAST CHINA: FINDING A PATH FROM THE CLASSROOM TO THE WORKPLACE

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INTRODUCTION

There is a wide gap between the skills and capabilities of graduating university students in China and the needs of the multinational corporations and other employers operating or seeking to set up operations there. Statistical literacy could go a long way toward filling that gap. This is a brief account of the lessons learned in an effort to cultivate statistical literacy, first in a manufacturing environment, then in the classroom of a university in northeast China. Teaching across cultures in the learners' second language, whether on the job or in the classroom, presents unique challenges as well as learning opportunities.

SUSTAINING STUDENT ENGAGEMENT

The students were second year undergraduates majoring in finance or accounting. Their motivation varied widely as did their fluency in English. Yet most were willing to participate in creating a learning environment quite different from the traditional Chinese classroom. Capturing the attention and engaging the students was not hard. Sustaining that engagement throughout the semester to achieve the learning goals proved to be more difficult. Soliciting and acting on feedback from the students on their own learning preferences proved to be a successful initial strategy. The students asked for:

- More experiments, games, and team-based exercises followed by thorough debriefings
- More storytelling
- More frequent assessments with prompt feedback, but fewer multiple-choice exams
- Less reliance on the textbook
- Clarification and explanation of common misconceptions
- Frequent repetition and summarizing of key points and key concepts
- A workbook
- A more thorough explanation of technical terms, supplemented with Chinese terminology

CONCLUSION

The field of cross-cultural teaching and learning is fertile ground for discovering what works and what doesn't work in cultivating statistical literacy. This initial foray into the field was useful in gleaning some insights and testing some methods. However, testable and repeatable methods that lead to greater statistical literacy across a range of cultures, student learning profiles, and learning environments, call for more rigorous investigation in both the classroom and the workplace.

REFERENCES

- Gal, I. (2002). Adults' Statistical Literacy: Meanings, Components, Responsibilities. *International Statistical Review*, 70(1), 1-51.
- Gagné, R. (1985). *The Conditions of Learning and the Theory of Instruction* (4th ed.). New York: Holt, Rinehart, and Winston.
- Watson, J. & Callingham, R. Statistical Literacy: A Complex Hierarchical Construct. *Statistics Education Research Journal* 2(2), 3-46.
- Wiggins, G & McTighe, J. (2005). *Understanding by Design* (2nd Ed.). Alexandria, VA: Association for Supervision and Curriculum Development.