Assessment Methods in Statistical Education
An International Perspective

Edited by

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Contents

Contributors ix
Foreword xiii
Preface xv
Acknowledgements xvii

PART A  SUCCESSFUL ASSESSMENT STRATEGIES 1

1 Assessment and feedback in statistics 3
   Neville Davies and John Marriott

2 Variety in assessment for learning statistics 21
   Helen MacGillivray

3 Assessing for success: An evidence-based approach that promotes learning in diverse, non-specialist student groups 35
   Rosemary Snelgar and Moira Maguire

4 Assessing statistical thinking and data presentation skills through the use of a poster assignment with real-world data 47
   Paula Griffiths and Zoë Sheppard

5 A computer-based approach to statistics teaching and assessment in psychology 57
   Mike Van Duuren and Alistair Harvey

PART B  ASSESSING STATISTICAL LITERACY 69

6 Assessing statistical thinking 71
   Flavia Jolliffe
CONTENTS

7 Assessing important learning outcomes in introductory tertiary statistics courses 75
Joan Garfield, Robert delMas and Andrew Zieffler

8 Writing about findings: Integrating teaching and assessment 87
Mike Forster and Chris J. Wild

9 Assessing students’ statistical literacy 103
Stephanie Budgett and Maxine Pfannkuch

10 An assessment strategy to promote judgement and understanding of statistics in medical applications 123
Rosie McNiece

11 Assessing statistical literacy: Take CARE 133
Milo Schield

PART C ASSESSMENT USING REAL-WORLD PROBLEMS 153

12 Relating assessment to the real world 155
Penelope Bidgood

13 Staged assessment: A small-scale sample survey 163
Sidney Tyrrell

14 Evaluation of design and variability concepts among students of agriculture 173
María Virginia Lópex, María del Carmen Fabrizio and María Cristina Plencovich

15 Encouraging peer learning in assessment instruments 181
Ailish Hannigan

16 Inquiry-based assessment of statistical methods in psychology 189
Richard Rowe, Pam McKinney and Jamie Wood

PART D INDIVIDUALISED ASSESSMENT 201

17 Individualised assessment in statistics 203
Neville Hunt

18 An adaptive, automated, individualised assessment system for introductory statistics 211
Neil Spencer
19 Random computer-based exercises for teaching statistical skills and concepts 223
   Doug Stirling

20 Assignments made in heaven? Computer-marked, individualised coursework in an introductory level statistics course 235
   Vanessa Simonite and Ralph Targett

21 Individualised assignments on modelling car prices using data from the Internet 247
   Houshang Mashhoudy

References 259

Index 279
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Foreword

In education, assessment is amongst the most useful things that we do for ourselves and our students. It is also amongst the most harmful things we do – the best and the worst.

It is useful for our students when it enables them to see what they do not understand and gives them insight and motivation to improve. It is useful for us as teachers when it helps us see where our teaching can be improved, when it gives us insight into the way our students are learning and when we can see the rewards of a job well done. It is useful for administrators when it helps them see which sort of structures work best for learning and which sort of people make good teachers, and ways in which they can improve the overall learning process.

It is harmful when it is seen as an end in itself. It is harmful to students when it makes the goal getting a paper qualification rather than gaining competence. It is harmful when it distorts the learning process and encourages learning and teaching for the test. Assessment is harmful when its contents do not match up with what is important to learn. To quote a phrase I first heard from Professor Hugh Burkhardt of the Shell Centre for Mathematical Education in Nottingham, ‘what you test is what you get’ – WYTIWYG. It is harmful when it is seen merely as a hurdle and when it promotes fear of failure, so encouraging strategies of getting high scores (particularly ‘passing’ an examination) at the expense of improving teaching and learning.

The position is made more difficult by the fact that many students studying statistics are not doing so out of choice. They may have to take a basic statistics course because it is an integral part of their main discipline – and they are not necessarily convinced of its usefulness. They may see it as an imposition, not an interesting learning experience to be applied in their profession. This makes it all the more likely that they will do the minimum necessary to get a piece of paper saying they have qualified.

All of the above may appear to say: formative assessment good, summative assessment bad. But it is not as easy as this. It is possible to develop good methods of summative assessment. This is only done by maintaining the focus that all assessment is subservient to the overall aims of improving teaching and learning and improving the statistical abilities of all our students.