Welcome to the latest issue of the Research and Enterprise Bulletin for the Institute of Education. We have decided that the Bulletin will from now on include items relating to Enterprise as well as Research, to reflect the close link that often exists between these two areas. The Bulletin appears once a term, reporting on research and enterprise activity of the previous term. Its principal aim is to increase awareness among all staff of research and enterprise activity within the IoE, by highlighting staff publications and conference involvement, research bids made and grants received, reporting on seminars held at the IoE and providing information on support available for research and enterprise. If you have an item of news that you would like to appear in the Bulletin, please send it to me at s.j.graham@reading.ac.uk

Suzanne Graham, Director of Research and Tony MacFadyen, Director of Enterprise

Summer Term Open Seminar Series

This term’s seminars have again covered a wide spectrum of themes, including, among others, researching the experiences of Black and Minority Ethnic trainees in Physical Education Teacher Education, and International Students in British Higher Education and issues relating to culture. Workshops for staff on using Powerpoint more effectively in presentations have been held. The First Language Research Group once again organised a very successful one day seminar for the BERA Language and Literacy SIG.

On June 10th, over 30 members of staff and students gave presentations on their work at the Institute Research Day, with all Research Groups represented.

Recordings of most seminars from the Summer term can be found at http://mediasite.reading.ac.uk under the heading of Public Lectures, with links to further details about speakers.

Forthcoming Events

The fifth public lecture on Inclusion and Special Educational Needs supported by the TDA will be held on Friday 19th November 2010, 6.30 for 7pm, at the Madejski Theatre, Agriculture Building, Earley Gate. Professor Usha Goswami from the University of Cambridge will speak on 'Dyslexia, rhythm and music'. Admission is free but places are limited and need to be reserved in advance, by contacting Val Jones at v.jones@reading.ac.uk

Professor Usha Goswami

We are always looking for research students and members of staff who would like to give a seminar, so please get in touch with me if you would like be involved.

s.j.graham@reading.ac.uk
Research funding
Funding secured since April 2010:

External funding

John Oversby, Rayner Mayer (School of Construction Management) and Pam Lewis: Changing with the climate. Comenius network, European Union. 2010-2013.

Yota Dimitriadi (with the School of Systems Engineering): A Knowledge Transfer Partnership application to work with the World Association of Girl Guides and Girl Scouts using e-learning to develop their World Leadership Development Programme.

Internal Funding
Two colleagues have been successful in gaining Research Endowment Trust Fund support:

James Garnett: Enterprise Pedagogy in music at Key Stage 3. This project is part-funded by the Berkshire Enterprise Learning Partnership, a consortium of local schools that holds a budget to promote enterprise education.

Georgina Lovett and Cathy Tissot: Supporting educational transitions: Exploring the specific needs of service children and their families.

Research proposals submitted

External Funding
Tony MacFadyen and the 14-19 Research Group: Pupils’ work experience; the experiences of non traditional students in HE. Hefce and Progress South Central.

Yota Dimitriad: The role of digital technologies in the transition to secondary school for pupils with special educational needs and disabilities: opportunities and challenges. Esmée Fairbairn.

Yota Dimitriadi and Andy Goodwyn are supporting a proposal by Dr Karsten Øster Lundqvist for a Postdoctoral Research Fellowships in Theoretical Physics, Mathematical Sciences and Cross-Disciplinary Interfaces. Engineering and Physical Sciences Research Council. If successful, Dr Lundqvist will carry out research in the IoE into the use of e-portfolios by trainee teachers.

Research Group meetings
The following Thursday has been reserved for Research Groups to meet (although meetings may take place at other times):

Thursday 7 October, 3-5pm.

- **14-19**: Tony Macfadyen
t.m.macfadyen@reading.ac.uk

- **Science**: Berry Billingsley
b.billingsley@reading.ac.uk

- **Global Citizenship**: Trevor Davies
t.c.davies@reading.ac.uk

- **Creative Arts**: Gill Hopper
g.w.hopper@reading.ac.uk

- **Equity, Inclusion and Improvement**: Cathy Tissot
c.tissot@reading.ac.uk

- **First Language**: Rhona Stainthorp
r.w.stainthorp@reading.ac.uk

- **Second Language**: Daguo Li
d.li@reading.ac.uk
Conference news

There was a strong IoE presence at the BERA conference earlier this month, giving many colleagues valuable experience. One presenter, Berry Billingsley, comments: 'It’s been quite challenging to work with the results from my research project, LASAR - we have several transcripts of pupils and teachers describing their thinking about science and religion, but how do the comments assemble into a coherent picture? BERA felt like the end of quite a journey, with earlier drafts jumping too much from one point to another, as those who read them pointed out. By the time of BERA we had reached version 15 (!). I feel attending the conference and presenting is an important stage in the struggle to get the words together to tell a coherent story. In my presentation it was great to have colleagues from the IoE there, thank you!'

BERA contributors from the IoE are as follows:

**Berry Billingsley**: Teachers’ perspectives on collaborative teaching about the ‘Big Questions’ in secondary schools: the silent treatment.

**Helen Bilton and Sharon Sutton**: The impact on trainee teachers of placements in SEN schools during the PGCE Primary year.

**Trevor Davies**: Overcoming social and cultural fragmentation in rural Transylvania: a case study based on the multicultural socialisation of mixed age pupils through a science and technology day.

**Carol Fuller, Andy Goodwyn, Caroline Crolla and Georgina Lovett**: Advanced Skills Teachers: a review of the current workforce.

**Carol Fuller and Andy Goodwyn**: Digi-teachers: technology and practice.

**Andy Goodwyn and Carol Fuller**: Motivations in developing expertise.

**Rob Harding and Ellie Francis-Brophy**: Advanced Skills Teachers and Excellent Teachers: a critique of current policy from a national and a global perspective.

**Gill Hopper**: Art and Global Citizenship: is it working?

**Georgina Lovett**: One size fits all, or does it? Students’ perceptions and attitudes to contributing to e-learning activities.

**Tony Macfadyen and Carol Fuller**: "What, with your grades?": student motivations and experiences of Further Education vocational courses.
Other conferences


Trevor Davies: Pupils' voices about citizenship education: comparative case studies in Finland, Sweden and England. 6th International citizED Conference, St. Andrew's University, July 2010.


-Globalization and multilingualism: the case of the UK. Keynote presentation at the 16th International Conference of the International Association for Intercultural Communication Studies, Guangzhou, China, 17-20 June 2010.

-Biographical approaches to Polish speakers in the UK. Sociolinguistics Symposium, University of Southampton, 1-4 September 2010.


Suzanne Graham: Language learner strategies: the link with motivation. Improving language learning through the strategic classroom: findings and applications of research, British Academy, 21 April 2010.

Rob Harding, Deb Heighes, Tony Macfadyen and Carol Fuller: The role and attitudes of secondary school staff in the provision of Post 16 Information, Advice and Guidance for Year 11 students. Keynote address, Progress South Central conference, Oxford, July 2010.


Tony Macfadyen and Carol Fuller: Student motivations and experiences of Further Education vocational courses. Keynote address, Progress South Central conference, Oxford, July 2010.


These are exciting times for the IoE and our local partners in terms of enterprise. Berry Billingsley (IoE Deputy Director for Enterprise) represents us on the Enterprise Learning Partnership currently chaired by Kate Thomson from Reading Girls’ School. James Garnett, working with the ELP, is undertaking a project on enterprise learning through music at KS3, and we remain committed to working with other partners in similar ways.

Cathy Tissot is working on a three year SENCO training programme in partnership with Local Authorities. Dave Harries is leading on the Williams initiative where the University is the national Fast Track and main stream provider to strengthen mathematics teaching in Primary schools - our congratulations go to both these colleagues.

Internationally the University is embarking on a new strategy and the IoE finds itself at the front of this having developed some exciting programmes and partnerships. Science and mathematics colleagues have been working in collaboration with teachers from the Caribbean on a CPD project and Trevor Davies and colleagues are about to begin an exciting Masters programme (Developing Education for Sustainable Global Futures) with staff from Semmey University, Kazakhstan as well as other CPD initiatives with the Ministry.

The IoE with NCLL has been selected by the China Scholarship Council as the UK provider for a seven month programme for Chinese teachers and researchers. We hope some of these participants will spend time in local partnership schools. From a very competitive field we are down to the last five bidders to help the Armenian Ministry of Education with their ITE programme. We are also in negotiation with institutions from Oman, Dubai, Qatar and Pakistan.

Lastly, Tony Macfadyen and the PE team have been chosen to host a delegation of top Chinese Physical Education delegates who are coming to the UK for professional development.

Enterprise at the UoR includes: research and teaching related enterprise, external services and outreach. Thus we are engaged in, for example, short courses, conferences, consultancy, developing intellectual property, knowledge transfer and developing projects at local, national and international level. If you have an idea for enterprise that we could help with contact Tony Macfadyen, Director of Enterprise:
t.m.macfadyen@reading.ac.uk or telephone 0118 3785895.

Impact of research conducted by colleagues in the IoE:

Viv Edwards On the basis of her British Council English Language Teaching research grant (with Daguo Li), Viv was invited by the British Embassy in Beijing to give a presentation on 27 August on Effective Partnered Teacher Education in China as part of the 2010 Shanghai Expo VIP event on Productive Partnerships in English Language Teacher Education in China. The event brought together senior decision-makers from education authorities in selected Chinese provinces and municipalities for a round table policy dialogue on English language teacher education in China. The aim was to inform delegates about the British Council and its global language teacher education strategy, the benefits of a partnered approach to language teacher education, and the current state of research in the field. This knowledge will assist them in their planning of English language teacher education opportunities in their provinces and municipalities.

Suzanne Graham, as the Convenor of the Language Learning and Teaching SIG of the British Association of Applied Linguistics, has been invited to co-author an article for the journal Language Teaching, to outline the future research agenda for second language teaching in the UK in her areas of expertise, second language learner strategies and motivation. She has been invited to give a series of lectures by Harbin University, China. She has become a member of the ESRC Peer Review College.

Paul Croll and Rhona Stainthorp have become members of the ESRC panels for Sociology and Education respectively.

Viv and Marriote Ngwaru were also invited speakers at the Spreading the seeds event as part of National Book Week, Museum Africa, Johannesburg (September 2010). They were invited to present the findings of their on-going Leverhulme project into publishing in Africa. The invited audience consisted of high ranking representatives from the Ministries of Culture and Education.
Other news

READING IN BERLIN.

But which reading of READING?

In this case, both. The XVIIth Annual Conference of the Society for the Scientific Study of Reading was held in Berlin this July. Reading was well represented with an oral paper by Rhona Stainthorp from the Institute of Education, and two poster papers: one by Jonathan Haenen and one by Rachael Sperring, both PhD students in the School of Psychology and Clinical Linguistic Science.

The purpose of the Society for the Scientific Study of Reading (SSSR) is to promote the scientific study of reading and to disseminate information about reading and related areas such as language and literacy.

The three papers from Reading all addressed issues relating to cognitive processes underlying the development of reading and spelling in Key Stage 2 children, which have the potential to advance our understanding of the challenges faced by children with specific literacy difficulties.

Rhona Stainthorp presented a paper which reported data from her ESRC funded project investigating cognitive processes in rapid automatised naming written with her co researchers Daisy Powell (Roehampton University) and Morag Stuart (University of London. Institute of Education). She was addressing the question ‘Does RAN performance contribute to word spelling?’ There is now ample literature which testifies to the contribution that rapid automatized naming (RAN) makes to word reading performance. Thus the double deficit theory of developmental dyslexia proposes that RAN deficits may be found independently from phonological awareness deficits in children identified as having developmental dyslexia. However, there has been much less research investigating the relationship between RAN and spelling. Given that spelling performance potentially involves phonological processes and orthographic processes, this study investigated whether individual differences in RAN are related to word spelling performance.

The study involved a comparison between a group of 72 children with poor RAN performance (Low RAN group), and a control group (N = 77) who were matched on age (7-9 years), phonological awareness, phonological memory and other key cognitive variables, but with no RAN deficit.

The Low RAN group showed significantly poorer spelling than the control group. Regression analysis showed that RAN performance made a significant unique contribution to word spelling and also that the Low RAN children were particularly weak when spelling irregular words such as FRONT as opposed to regular words such as DRINK. These data suggest that RAN performance is also implicated in individual differences in word spelling over and above the contribution of phonemic awareness. These findings can contribute to our understanding of the potential processing difficulties which underlie dyslexia.

Publication news

Carol Fuller was recognised in the Faculty of Social Science Research Output Competition for her book, Sociology, gender and educational aspirations: girls and their ambitions, receiving a book token. In addition, her nomination for the prize has brought her work to the attention of colleagues in the School of Economics and the Henley Business School, with whom she is now working on a collaborative research bid.


Taggart, G. (2010). Religious and spiritual identity and citizenship education in the UK. In M. Soininen and T. Merisuo-Storm (Eds.) Looking at diversity in different ways (pp. 95-119). Turku, Finland: University of Turku.

Staff publications

Please remember that from now on we will not be gathering information centrally on the IoE’s publications. Colleagues are asked to place details of their publications onto CENTAUR, the University Research Repository (http://centaur.reading.ac.uk/). It is vital that all publications are lodged there, so that the University has an accurate record of the outputs from the IoE. For assistance with using CENTAUR, please contact Carol Fuller (c.l.fuller@reading.ac.uk)
Recommended reading


Post-graduate research students

Moon Seonghye presented a paper on Migration, education and child and parent expectations: the Korean experience at the Middlesex University conference on Children, families and the migration experience: opportunities and challenges, 21 May 2010.

Graduation – Our congratulations go to Jinghui Wang who received his PhD at the Graduation Ceremony held in July, for his thesis on second language writing and learner autonomy (supervised by Suzanne Graham and Brian Richards).

Sharing Research Practice

Data Entry and Missing Values

By Brian Richards

SPSS Tip

No matter how carefully you plan your research there are often gaps in the data: people miss out part of a questionnaire, pupils are absent from school when you turn up to test them, or participants drop out in the middle of a longitudinal study.

Each missing data point will mean an empty cell in the SPSS spreadsheet. There are two ways of handling this.

Method 1: do nothing!
Just leave the cell blank and move on to the next entry (but don’t enter a zero, as one of our research students once did!!). The System will treat the gap as a missing value and “.” will be left behind to indicate this. Table 1 shows the output from the Frequencies command (ANALYZE => DESCRIPTIVE STATISTICS => FREQUENCIES) for some real data on 150 students learning French. In column 2, after the frequencies for grades A-D and the total, it can be seen that there were 22 blank cells in the spreadsheet, i.e. we had been unable to obtain GCSE grades for 14.7% of the participants (column 3).

Table 1: GCSE Grade for French (no missing values defined)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A*</td>
<td>54</td>
<td>36.0</td>
<td>42.2</td>
<td>42.2</td>
</tr>
<tr>
<td>A</td>
<td>50</td>
<td>33.3</td>
<td>39.1</td>
<td>81.3</td>
</tr>
<tr>
<td>B</td>
<td>16</td>
<td>10.7</td>
<td>12.5</td>
<td>93.8</td>
</tr>
<tr>
<td>C</td>
<td>7</td>
<td>4.7</td>
<td>5.5</td>
<td>99.2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>.7</td>
<td>.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>85.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>22</td>
<td>14.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This method is fine, but you might be uneasy about leaving cells blank in case you thought you had missed an entry by mistake, or if you wanted to differentiate between reasons for data being missing. You might want to distinguish a “don’t know” response from “not applicable” in a questionnaire survey, for example. In these cases we can define a specific value or values as missing.

Method 2: defining missing values
It is easy to define a value as missing in SPSS:
1. Open the spreadsheet and click the Variable View tab (bottom left);
2. Select a variable and click the Missing box in column 8;
3. Click on the grey box at the right of the box;
4. Select the Discrete Missing Values option;
5. Enter the value or values you have chosen => OK;
6. If other variables have the same missing value(s), you can copy and paste the content of the Missing box;

Post-graduate research student seminar days

A number of students have given presentations at these events, run on a regular basis by Mary Stakelum, including: Emre Debreli, Ayesha Faisal, Elizabeth Leitch, Chiu-Ling Liu, Seong Moon, Qi Wu and Xiaorong Zhang. Dr Leong Lai Mei gave a guest presentation as a Visiting Academic.

Date of next seminar: Saturday November 20th in Old Whiteknights House.
7. Click **Data View** to return to the spreadsheet and enter the chosen value or values in the corresponding empty cells in the spreadsheet.

In 4. above, it is essential that the values you choose could not possibly be real values in the data. Some textbooks (Bryman & Cramer, 2001; Colman & Pulford, 2006; Landau & Everitt, 2004) recommend using 99 or 999. Some people declare zero as missing. However, I have data sets in which all of these numbers actually occur so I normally use a minus number.

Table 2 below shows frequencies for the same data set as Table 1, but in this case I have declared the values -2 and -1 to distinguish between values that are missing because the pupil had withdrawn from the project (e.g. changed school, dropped the subject, etc.) and grades that the schools had failed to pass on to us. Note the changes to the first three columns.

**Table 2: GCSE Grade for French (2 types of missing value defined)**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A*</td>
<td>54</td>
<td>36.0</td>
<td>42.2</td>
</tr>
<tr>
<td>A</td>
<td>50</td>
<td>33.3</td>
<td>39.1</td>
</tr>
<tr>
<td>B</td>
<td>16</td>
<td>10.7</td>
<td>12.5</td>
</tr>
<tr>
<td>C</td>
<td>7</td>
<td>4.7</td>
<td>5.5</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>.7</td>
<td>.8</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>85.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-2.00</td>
<td>8</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>-1.00</td>
<td>14</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>14.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Space does not allow us to address the implications of missing data for the analysis, for example where a large quantity are missing or the gaps are non-random, but a brief introduction can be found in Duffy & Jacobsen, 2001, pp. 53-6) and there is a more in-depth treatment in Chapter 3 of McCartney, Buchinal, & Bub, 2006).

**References**


