



Conference Report

Spelcon 2008

The Cost of English Spelling

7th international conference

Coventry University, UK

7th-8th June 2008

Sponsored by The Spelling Society

Founded 1908 in London, England.

**Working to raise awareness of the problems caused by the irregularity
of English spelling, and to promote remedies to improve literacy,
including spelling reform.**

Preface

On 10 September 1908 a group of like-minded people gathered in the York Room in the Holborn Restaurant in London, with a view to finding a solution to the recognised irregularity and arbitrary nature of current English spelling.

Those present at the inaugural meeting included both British and American scholars: William Archer, London; Prof. James W Bright, Baltimore; Dr FJ Furnivall, London; EP Gaston, London; Prof. I Gollancz, London; Prof. H Stanley Jevons, Cardiff; JJ Monro, London; AW Pollard, London; Dr Chas. PG Scott, New York; Prof. Walter Skeat, Cambridge. Their primary aim was *‘to recommend simpler spellings of English words than those now in use, to further the general use of such simpler spellings by every means in its power, and to co-operate with the Simplified Spelling Board of the United States of America, founded and incorporated in New York.’*

Over the years the aims of the Society have evolved to fit the changing needs of the times. The current objects of the Spelling Society are: *‘to raise awareness of the problems caused by the irregularity of English spelling, and to promote remedies to improve literacy, including spelling reform’*. The change in emphasis is due to the 21st century world, with its massive explosion in electronic communication, personal word-processors, and millions of web pages, making it more difficult to introduce new fonts or letters. The reform proposed by George Bernard Shaw required an entirely new alphabet: such a radical approach is no longer viable.

At the time the Society was set up any update in spellings to fit contemporary needs and pronunciations would have involved only a relative handful of publishers. In 2008, one hundred years later, the number of publishers (in whatever definition) is orders of magnitude greater, and English is the lingua franca of the entire world: no longer can the UK or USA decree how English spelling must be for the rest of the world, though either can certainly guide and lead.

For these reasons the Society now focuses its efforts on publicising the dire state in which

English spelling currently languishes. No greater evidence for this lies in the fact that literacy levels are plummeting in the English-speaking world; not just the UK or the USA, but across all countries where English is the mother-tongue (Australia, New Zealand etc). The common factor is the use of traditional orthography as an incompetent tool for modern literacy needs.

The popularity of text messaging and emailing has amply demonstrated that huge numbers of youngsters, otherwise written off as ‘illiterate’ by the education authorities, find that they can communicate well in written form once the shame of poor spelling is not a cause for ridicule by the reader. The noble experiment with ITA in the 1950s and 1960s in the UK also clearly demonstrated that a logical spelling system encourages reading and literacy by making reading fun, rather than a chore. There are, of course, those who feel that any change to the spelling that they learned at school is ‘dumbing down’; that is a fallacious argument, as English spelling has changed piecemeal ever since writing was invented and most other languages have periodic updates. To say that, for example, writing ‘frend’ rather than ‘friend’ is ‘dumbing down’ is as absurd as to claim that the change to writing ‘music’ rather than ‘musick’ was dumbing down.

The written language has a similar relationship to the spoken language as does a musical score to the performance of the opus (which is not to say that written *style* is the same as oral style); writing a Mozart opera in tonic-sol-fa rather than on staves does not ‘dumb down’ or in any way change the beauty of the music. Shakespeare’s plays and poems are just as beautiful in Johnson’s spelling, Braille or shorthand as they were in the first folio. In the same way using an updated spelling does nothing to affect the language itself; to argue that changes in spelling change the language itself is a example of the ‘fallacy of category’ and betrays a lack of clear thinking.

A spelling system which holds lingering echoes of 17th century pronunciations, which is full of false-etymologies such as the spurious ‘s’ in ‘island’ or the unauthentic ‘l’ in ‘could’, and which seems to be upheld largely as a means of

testing the memory powers of its users, is not a rightful tool for any mass medium in the 21st century. If modern day Gradgrinds or Holofernes wish to perpetuate the pedagogical ideals of their originals in Dickens and Shakespeare, they will argue that learning an intrinsically difficult spelling system is prime brain training, and would, one assumes, correspondingly be even happier if the spelling were made yet more difficult, thereby improving our intellects even more. The same reasoning was used for retaining 240 pence making one pound.

Egyptians used hieroglyphs to ensure that the common people could not become literate and were kept in their allotted station in society; the Italian authorities forbade the change from roman numerals as it would undermine the power of accountants; some elitists see a similar role for preserving the arcana of English spelling. Keeping the 'history' of a word – its etymology - visible in its spelling is a chimera, and is neither sensible nor effective (though etymology itself is of course fascinating): it is as incongruous and cumbersome as requiring an electric train to have a wooden smoke-stack and a plastic coal-tender so that we can see how they used to look, or inserting a letter 'L' in the number '45L3' to remind us that the Romans used an 'L' for '50'.

In the 100 years since the Society was founded many proposals for updates to the spelling have come forward; few have found favour amongst those who appear to have a vested interest in ensuring that only those with photographic memories can have fluency in reading and writing. It should be noted in this context that claims that previous generations had high literacy as a result of hard work and better teaching, forget that the 19th century definition of 'literacy' meant '*able to write their own name and sign documents*'. That definition is woefully inadequate for the 21st century.

The Society's international conference, 2008, therefore had as its theme the enormous cost and damage caused by clinging to a spelling system

which is long past its effectiveness. 'Cost' can be variously calculated, as indeed was highlighted in the presentations, as financial cost, opportunity cost (time better spent elsewhere), cultural cost, emotional cost etc. Indeed, if spelling were regular, millions of hours and pounds/dollars would instantly be saved by the removal of the need for spelling tests and the death of meretricious public memorising of unusable words in contests called 'spelling bees'.

In the next few years the Society will be able to celebrate the tercentenary of the birth of Samuel Johnson in September 1709. His great dictionary of 1755 did not try to regularise the structure of spelling: he explicitly admits that he merely chose from the prevalent forms he found around him. His dictionary was, nonetheless, a massive influence on increasing literacy in the 18th century.

Looking further ahead the Society will celebrate the bicentenary of the birth of Sir Isaac Pitman in 2013. He was a pioneer of spelling reform and literacy education, and remains famous through his shorthand system. It was his grandson, Sir James Pitman KBE, who steered the ITA experiment through the English parliament.

The Society hopes that those without a vested interest in preserving the status quo will prevail in freeing teachers from the undeserved ignominy of being blamed for low literacy caused by their allegedly inadequate teaching of an archaic, arbitrary and inappropriate system, and that similar updates to the spelling system will be sought in the way that the pedagogues of the 18th century pioneered, but without the pseudo-scholastic ballast which set some aspects of their spelling dicta back to the dark ages. In that way the future of English as a world language (at present under real threat from Spanish because it is easier to learn to read and write) will be maintained, and people will rediscover the joys of high fluency in literacy without it being distorted into a brain-test.

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Dr John M Gledhill, Conference Convener

Conference theme

How much time, effort, and money is spent in schools, and in educational contexts generally, merely to cover the complexity of the current 'traditional' English spelling system rather than teaching the joy of reading and writing? This conference aimed to draw attention to the financial, educational and cultural costs for all levels of the English Educational system, comprising Universities, Schools, teachers and students arising from the difficulties in teaching reading and writing in the current spelling system, using recent research and comparisons related to the ease with which better structured orthographies in other languages are learned and taught. The above costs also include the often unrecognised expense (time and money) that employers and authorities incur

in offering remedial courses to help otherwise vocally skilled people who have not managed to master the illogicality of English Spelling while being verbally adept in the language. The event was sponsored by the Spelling Society.

The conference was attended by almost 25 people at various times, both from within the Society and from non-members attracted by the conference publicity, with particularly high attendance for the key-note presentation by Prof John Wells. At various times in the conference members had the opportunity to view personal displays by members of the Society, which proved a very popular aspect for those attending.

Conference Program

Saturday 7 June 2008

- Welcome: Mr Jack Bovill, Chair of the Spelling Society
- Ms Masha Bell: 'The most costly English spelling irregularities'
- Ms Zuzana Kotercová: 'The cost of English spelling in primary schools'
- **Keynote speaker:** Prof John Wells, President of the Spelling Society, Emeritus Professor of Phonetics, University College London: 'Why do we need pronunciation dictionaries?'
- Mr Christopher Jolly: 'Remedial teaching of reading: a trial with reformed spellings'
- time for members to visit displays by members
- Ms Raffaella Buonocore: 'Does being a Chinese speaker reduce the time of learning English spelling?' (in her absence presented by Dr John Gledhill)

Sunday 8 June 2008

- Time for members to visit displays by members (continued)
- Prof. Anatoly Liberman: 'Between the Spellchecker and the Spelling Bee, *or*, The moral cost of teaching English spelling'
- Dr Valerie Yule: 'The international costs of English spelling, and the comparative costs of improvement' (in her absence presented by Dr John Gledhill)
- Mr Tom Zurinkas: 'The costs of poor reading skills'
- Close and thanks: Mr Jack Bovill

Personal displays and demonstrations

Ms Masha Bell	books, research
Mr Roy Blain	Saaspel as a solution to the cost of spelling
<i>(presented by Mr Adrian Alphoziel and Mr Isen Callaki)</i>	
Mr Tony Burns	Alphabets
Ms Theo Halladay	spelling quiz, leaflets
Mr Christopher Jolly	books, phonics
Mr Alan Kiisk	books
Ms Zuzana Kotercová	research dissertation
Dr Ed Rondthaler	DVD presentation
Dr Valerie Yule	books, pamphlets etc
Mr Tom Zurinskas	books, displays etc
Spelling Society	pamphlets, society information, books on spelling reform, journals

List of delegates

Mr Adrian Alphoziel	Germany
Ms Judith Barnes	UK
Ms Masha Bell	UK
Mr Jack Bovill	UK
Ms Sandra Brownbridge	UK
Mr Tony Burns	UK
Mr Isen Callaki	Germany
Ms Julie Clayton	UK
Mr Nicholas Cole	Australia
Prof Alice Coleman	UK
Mr John Dalby	UK
Dr John M Gledhill	UK
Mr Ross Graham	UK
Mr Nigel Hilton	UK
Mr Christopher Jolly	UK
Mr David Jones	UK
Ms Zuzana Kotercová	Slovakia
Prof Anatoly Liberman	USA
Mr Stephen Linstead	UK
Mr Edward Marchant	UK
Ms Marina Orsini-Jones	UK
Prof John Wells	UK
Mr Tom Zurinskas	USA

Apologies received

Dr Stephen Bett	USA
Mr Ian Bickerstaff	UK
Mr Richard Comaish	UK
Ms B Epstein	UK
Ms June Evans	UK
Dr Theo Halladay	USA
Dr Simon Horsman	UK
Ms Maria Jevremovic	UK
Dr Shinder Thandi	UK
Dr Clare Wood	UK
Dr Valerie Yule	Australia

Presenter Profiles

Ms Masha Bell

English spelling researcher and author, Lithuanian by birth, learned English as a second language and has written extensively on spelling reform and educational matters relating to spelling pedagogies.

Website: <http://www.englishspellingproblems.co.uk/>

Dr Stephen Bett

A former professor of typography and computer graphics, and a communications consultant involved in training faculty on how to build better e-courses. He contributed to the book *Internet 'Based Learning'*, Kogan-Page, 1999. He maintains a resource site on alphabets, alternative transcription systems, and spelling reform, and is a volunteer literacy instructor.

Website: <http://www.fortunecity.com/victorian/vangogh/555/Spell/sitemap-l.html>

Ms Raffaella Buonocore

Teacher of English as a foreign language in China, and professional translator of English to Chinese.

Website:

http://www.translationdirectory.com/translators/chinese_english/raffaella_buonocore.php

Mr Christopher Jolly

Educational publisher through the 'Jolly Learning' company, and publisher of the very successful 'Jolly Phonics' reading books.

Website: <http://www.jollylearning.co.uk/>

Ms Zuzana Kotercová

Postgraduate student at Coventry University, UK. Carried out research into the amount of work undertaken by a sample of English primary school teachers in carrying out spelling instruction, as opposed to general reading and writing skills.

Website: <http://www.phon.ucl.ac.uk/home/wells/kotercova.pdf>

Professor Anatoly Liberman

Professor of Germanic Philology in the Department of German, Scandinavian and Dutch at the University of Minnesota, Minneapolis. He teaches linguistics, mythology, folklore, and medieval literature. His latest books are *Etymology for Everyone: Word Origins... and How We Know Them* (Oxford University Press, 2005) and *An Analytic Dictionary of English Etymology: An Introduction* (University of Minnesota Press, 2008).

Website: http://blog.oup.com/category/reference/oxford_etymologist/

Prof John Wells

Emeritus Professor of Phonetics, University College London. Prof Wells has been a prolific publisher in his field, and most recently has edited the Longman Pronunciation Dictionary. He is also President of the Spelling Society.

Website: <http://www.phon.ucl.ac.uk/home/wells/>

Dr Valerie Yule

Researcher and writer on spelling and literacy. Formerly clinical child psychologist in hospitals and disadvantaged schools, and academic in education, psychology and English departments, Universities of Melbourne, Monash and Aberdeen.

Website: <http://home.vicnet.net.au/~ozideas/spelling>

Mr Tom Zurinkas

Researcher into spelling reform and the implications of the current traditional orthography, as part of his work into language in general and into the computer applications of linguistics in particular.

Website: <http://www.elsnet.org/experts/1198.html>

Conference Team

Ms Julie Clayton, Dr John Gledhill, Mr Nigel Hilton, Mr Stephen Linstead

Thanks are also offered to **Ms Michelle Canciani** and other members of Coventry University Conference Management.

Support

Student assistant: Alex Regan

Technical support: Saville Audio-Visual

Filming: Pro-Mo Media

Press liaison

Ms Vikki Rimmer

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International conferences by the Spelling Society since 1975

1. 26 August - 1 September 1975, University of London, UK, 'Reading and Spelling'
 2. 27-30 July 1979, University of Northampton, UK, (at that time Nene College) 'Improving Spelling',
 3. 31 July - 3 August 1981 Edinburgh, UK, 'Spelling Research and Reform'
 4. 26-28 July 1985, University of Southampton, UK, 'Spelling reform now'
 5. 24-26 July 1987, Aston University, Birmingham, UK, 'Spelling for Efficiency'
 6. 29-31 July 2005, University of Mannheim, Germany, 'International English Spelling for Global Literacy'
 7. 7-8 June 2008, Coventry University, UK, 'The cost of English spelling'
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Abstracts of presentations

Ms Masha Bell

The most costly English spelling irregularities

It is now well established that learning to read and write English is more difficult and takes much longer than other languages, because English letters can have more than one sound (in, kind, ski) and English sounds can be spelt in many ways (too, do, through, true, blew, shoe). I have established that English has at least 3695 common words which cannot be spelt by merely applying phonic rules and that 2039 of those words are not entirely decodable for reading either. But not all words which are tricky to read and spell impede literacy progress equally badly. Some tricky spellings cause no reading difficulties (photo/foam, main/lane); a few words with reading problems have predictable spellings (have/gave; deliberate x2).

On this occasion I want to present the spellings which are the chief retardants of literacy progress in English: the unreliable letters and letter strings which regularly occur in the most often used words and make them difficult to decode and to spell, such as 'once, some, you'. Even beginning readers cannot get far without learning to read them, because they crop up on every page. They cannot be avoided in even the simplest elementary independent writing either.

They are the reason why all English-speaking children need many hours of individual reading instruction if they are to make satisfactory progress. They make the teaching of this skill far more expensive than in other languages, yet even most teachers are not fully aware of them.

Dr Stephen Bett

The cost argument in historic appeals for spelling improvement

[Note: due to illness Dr Bett was unable to attend the conference to present his paper.]

Reducing costs has always been part of any appeal for Spelling Reform. It often argued that Spelling Reform would reduce the cost of elementary education by 50%.

As F.A. March wrote in 1893: "It is currently stated by leading educators that the irregular spelling of the English language causes a loss of two years of the school time of each child, and is a main cause illiteracy; that it involve an expense of many millions of dollars annually for teachers, and that it is an obstacle in many other ways to the progress of education among these speaking the English language." (This is from *The Spelling Reform*. Most of the old books on SR are on Google Books.)

Cost has also been the principle argument used by those who oppose spelling reform. We are probably no closer to resolving the differences today than we were in the mid 1800's.

Those who oppose reform simply discount the claims made by advocates. They do not see reform as a way to advance literacy. They see it as a plot to separate English speakers from their literary past.

Ms Raffaella Buonocore

Does being a Chinese speaker reduce the time of learning English spelling?

In this essay I wish to raise the problems which Chinese speakers face today in the acquisition of English; these problems include the complexity of English spelling, the lack of training students receive in spelling which has an impact on gaining necessary English skills, and above

all the rigid methods used by Chinese schools which affect the attitude students adopt towards the language, thus influencing the progress that they make in the language.

I also wish to offer my views towards effective methods of teaching English spelling, according to my experience of teaching English in Asia for over five years; and offer suggestions as to which methods might improve the way in which English spelling is taught in Chinese schools, and how these methods may aid students to make quicker progress in the language, and hence influence the way in which English is regarded by Chinese speakers today.

Mr Christopher Jolly

Remedial teaching of reading: a trial with reformed spellings

The severe cost of failure in learning to read provides an opportunity for publishers. The teaching community, and parents, have a willingness to buy radical solutions to the problem provided such solutions are credible.

This paper describes a study that took place in four primary schools with children struggling with reading. The children had storybooks with a reformed spelling as well as traditional orthography. They used the reformed spellings when they got stuck (as they frequently were). The children made high levels of progress, especially those with the more severe difficulties. The results and the responses will be described, along with the future plans for this programme.

Ms Zuzana Kotercová

The cost of English spelling in primary schools

An initial survey and analysis of the amount of time (and therefore money in staff salaries) spent by teachers in teaching English spelling to primary school pupils. The research was partly financially supported by the Spelling Society.

Prof Anatoly Liberman

Between the Spellchecker and the Spelling Bee, or The moral cost of teaching English spelling

My perspective is that of an American professor, reviewer, and panelist. Bitter experience has taught millions of people that the difficulties of English spelling cannot be overcome. Young Americans, perhaps more pragmatically-minded than their European peers, often take their illiteracy for granted, almost as one takes an inborn physical defect. Time and again I have heard the statement (usually followed by a giggle): 'I am a terrible speller.' This 'defect' has devastating consequences in many areas, and especially in academe. I remember losing interest in the manuscript of an article in which on the first page 'principle' was written instead of 'principal'. Though I hated myself for my snobbery, I could not help it. While reading the dissertations of my advisees, one of my main concerns is not to miss any of their spelling errors. I have also spent years teaching English as a second language. Foreigners have no choice but to be docile and learn what they are taught, but here, too, it would be more profitable to concentrate on phonetics, grammar, and words, rather than spelling. As far as I can judge, among the native speakers of the European languages, the resignation of English speakers, when it comes to spelling, has no parallels.

Prof John Wells,

Why do we need pronunciation dictionaries?

This presentation includes a report of preference polls for words of dubious pronunciation. This relates to the new, third, edition of my /Longman Pronunciation Dictionary/, published in March 2008.

If our spelling system were not so opaque and inconsistent, there would be very little need for a dictionary devoted exclusively to pronunciation.

Unsurprisingly, then, there are three competing English pronunciation dictionaries on the market: the Cambridge English Pronouncing Dictionary, the Oxford Dictionary of Pronunciation, and my own Longman Pronunciation Dictionary. As well as showing the pronunciation of vocabulary words in British (RP) and American English, they also cover — to varying extents — proper names and inflected forms.

The Longman Pronunciation Dictionary is the only one to offer statistics derived from public preference polls. In preparation for the new edition, I conducted a new on-line poll, with the publishers' help, in April-June 2007.

Responses were accepted only from those respondents who indicated their geographical origin as Britain (= England, Wales, Scotland and the Channel Islands, but not Ireland). The number of valid responses varied by question, but was in the range 800-825.

There were 30 items in the questionnaire: accept/except, adult, applicable, Asia, careless, contribute, debris, diphthong, dissect, during (initial consonant and stressed vowel), egotistic, electoral, H, homogeneous, hurricane, impious, kilometre, lamentable, liquorice, mischievous, necessarily, omega, poor, protester, tinnitus, tune, via, were, yours. As in previous questionnaires, each question was multiple-choice, asking which of two or more pronunciations the respondent preferred for the given word.

Dr Valerie Yule

The international costs of English spelling, and the comparative costs of improvement

This paper analyses the ways in which difficulties in spelling as the technology of written communication carry personal, social and economic costs, world-wide, with an assessment of the particular points of difficulty, and who are disadvantaged by them. Quantitative research still requires collation and extension.

The difficulties of unpredictability in English spelling have in the past served elitist social purposes as a barrier to social mobility.

Today the costs are more serious and obvious. It is in the public interest, internationally, that access be as wide as possible everywhere to the major lingua franca for commerce, science, technology, education and transmission of cultures. This necessity also carries the condition that removing the traps in English spelling does not hinder access to our heritage of print and everything now in print in English. This is feasible. Introduction of needed changes can be inexpensive and move quickly, but requires research and application of existing research, especially in cognitive psychology, pilot experiments and an International Commission on English Spelling.

Mr Tom Zurinskas
The costs of poor reading skills

This paper discusses several aspects of the cost of poor reading skills that I have gathered over the past few years. Some remedies are discussed. The application of truespel phonetic spelling is mentioned as a reading instruction tool.

Editor's notes

- The proceedings included in this volume were the foundation of the presentations at the conference but are not a verbatim transcript. All presentations have been edited and the footnotes expanded for publication in this volume.
- Each session was followed by a Question & Answer sessions, which have not been included here. During the conference several members of the Spelling Society displayed on various aspects of spelling and literacy; these are alluded to during some of the presentations but details are not included other than the list on page 5.
- All web links indicated were correct at the time of the conference but may of course be liable to change.
- Special punctuation: Many of the speakers relied on vocalisations of examples to support their arguments. The texts in these proceedings do not employ the full IPA notations for these utterances (except in Professor Wells's presentation) but use a simplified form in the interests of general lay readership. However readers should note the following which have often been used in the interests of clarity:
 - slash marks '/.../' round a set of letters shows an illustrative pronunciation, simplified to make it intelligible to the lay reader;
 - a capital letter has been used within slash marks to indicate either syllabic stress or to draw attention to a difference between two given forms;
 - chevrons '<...>' show the written form of a word or letter;for example: 'the <a> in <many> is pronounced /e/ '.
- Normal quotation marks are used where the word is simply being used as an example rather than referring specifically to its spelling or pronunciation.
- The only special character commonly used is the inverted <ə> to show the unstressed vowel as found in the first syllable of <above>, and sometimes to show the often stressed vowel used in 'BBC/RP' pronunciation in words such as 'come';
 - on a very few occasions other special characters such as <θ> have been used, but only where necessary, and their use is explained in each case.
- A CD-Rom (Video-CD) recording of the conference is available on request.

John Gledhill

Proceedings of the Conference

Mr Jack Bovill, Chair of the Spelling Society Welcome

Welcome everybody. This is the 2nd Spelling Society conference that I have attended.

I have brought with me the report from the last Society 'Spelcon' Conference, held in 2005 in Germany, where we were very fortunate to meet Professor Augst, a prominent figure in the development and recent updates of German spelling.

I bid welcome to our President, our committee members, our presenters, our Society members and our guests. Today the aim of this conference is 'The Cost of English Spelling'.

Ms Masha Bell

The most costly English spelling irregularities

Note: delegates were given a copy of the sheets titled 'English reading problems', to which Ms Bell refers during the presentation for examples. See page 22.

One of the reasons we are here today is to commemorate the 100th anniversary of the Society. For me personally it is also an anniversary as it is exactly ten years since I joined. During those years I have been trying above all to understand why learning to read and write English is so difficult. I have an advantage in the sense that I did not start to imbibe English spelling with my mother's milk: I did not begin to learn English until I was 14.

When I first started to learn to read and write it was in Lithuanian and Russian, two languages whose spelling is quite close to the alphabetic ideal. If you have a spelling system where a letter spells only one sound and a sound has only one spelling, then learning to read and write is very easy, as the Finnish spelling system also proves. That has been my experience with Lithuanian, which has almost as good a spelling system as Finnish, and Russian comes quite close too.

Coming across English at the age of 14 was a shock. My first reaction was *'they cannot do this, they cannot use the alphabet like that; letters are supposed to represent one sound, you cannot have <a> being /a/ as in <cat> and <sat> but also /e/ in <any> and <many>'*.

This made me look at English spelling in a different way. Most of you here today were introduced to it more gradually and at a much younger age and therefore would have found it harder to realise that there was anything wrong with it. But when I eventually became a teacher of English and modern languages in England I realised that I, as a foreigner, was not the only one who found learning to read and write English difficult, that many English native-speaking pupils also found it very hard. However it was not until I stopped teaching that I had the time to try and find out just how bad

English spelling really was. People used to tell me that it cannot be *that* bad if even foreigners like me can cope.

So I became determined to find out exactly how bad it was. I started my research into this as soon as I joined the Society. I also started sending articles and letters to newspapers suggesting that many English people were having literacy problems because of the English spelling system. My retirement from teaching happened to come at a time when the papers were full of criticism of teachers. Literacy standards were found to be poor and teachers were being blamed. I felt driven to explain that it was wrong to cast the blame in this direction.

I first made a collection of 6800 basic English words, words which school-children were likely to meet by the age of 16, and then sorted them into those that have sensible spellings and those that do not. My first attempt to show them to other people was in getting my book 'Understanding English Spelling'¹ published. I have continued trying ever since to improve my understanding of what is wrong with English spelling, as well as to educate others.

What I want to talk to you about today is not all spelling problems, but just the most costly ones.

English is famous for causing spelling problems.

They absorb learning and marking time.

(Overview at englishspellingproblems.co.uk)

In May 2008² the Spelling Society gave 1000 people a spelling test of ten carefully chosen words, and predictably many of the participants got quite a few of them wrong. The words chosen were deliberately common ones which people frequently get wrong. The main objective of this test was to draw attention to the problem.

We know that people make spelling errors. Almost every school examiner's report still bemoans the low standards of spelling, echoing the findings of the Newbolt report³ of 1921, which told of employers complaining even then of having trouble finding enough school leavers with literacy skills adequate for their needs.

Spelling problems have been around for a long time, but the main point that I want to make at this conference is that they absorb great amounts of learning and marking time. The same mistakes have to be corrected over and over again. It does not matter, for example, how many times teachers explain the difference between <there>, <their> and <they're>, the pupils still get them wrong in their writing. They can even get them right in spelling tests but when they come to use them in their writing they often get them wrong again. Having an illogical spelling system definitely necessitates a great deal of marking time as well as learning time.

My research has established that there are at least 4000 common English words that have something unpredictable in their spelling. Some of them have very little wrong with them. For example it may be just one letter as in <brother>, which is spelled as if it rhymed with <bother>. If the word <pheasant>, on the other hand, there are *four* things you can get wrong – the <ph>, the <ea>, the <s>, and the <a> in <ant> at the end. That word takes much more effort and time to learn.

So these 4000 words, some with just one little thing wrong in them, others with several traps, have to be memorised one by one. There is no rule by which you can predict how you are going to spell, for

example, the words, <any> and <many>, they just have to be learnt individually

Heterographs:

there/their,
it's/ its,
too/to/two

One of the biggest spelling problems is caused by heterographs [homophones] – spelling identically sounded words in different ways. They epitomise what is wrong with English spelling, and go across many different sounds: the /oo/ sound as in <soon> and <true>, the /air/ sound as in <there> and <their>, the /ee/ sound as in <beach> and <beech>, and the /ai/ sound in <I>, <eye> and <aye>. The main reason why heterographs are such a problem is that there are at least 335 cases where a word sounds the same when spoken but can be spelt in two or three different ways.

This means that for these 335 word-sounds you have to learn about 800 spellings. Yet there are also thousands of words which sound the same but have different meanings and only one spelling: for example /meen/ is spelt <mean> whether it means 'intend' or 'miserly', as in 'I did not *mean* to be so *mean*', and people have no problem with this. Similarly you can be '*left*' standing on the '*left*', again without the identical spelling causing any misunderstanding. Conversely where there are different spellings for identically sounding heterographs there are endless errors.

Consonant doubling

with nearly 1000 words to memorise:

380 regular, 380 missing, 170 surplus
e.g. mellow, melon, hello

+ oddities (call / crawl, bus / fuss)

Another major source of spelling problems is consonant doubling. Children are taught that we double the consonant at the end of

short words when adding suffixes like <-ed> or <-ing> to keep the preceding stressed vowel short (e.g. <pinned>, <pinning>), to stop it becoming long (eg <pined>, <pinning>). Unfortunately this rule is constantly broken in longer words. The reason for doubling the <l> in <mellow> is supposedly its short /e/, but why is there then no double <ll> in <melon> too? If the doubling rule was consistent it would be <mellon>.

A further complication is exemplified by <hello> where the stress is on the last syllable. The doubling rule is meant to show that the preceding vowel is short and stressed. But in <hello> the stress is on the last syllable not the <e>. The 2nd <l> is therefore surplus, just as the 2nd <c> in <account> and the <p> in <apply>.

There are also words where we double a consonant for yet other reasons: there is no real need to spell <call> with a double <l>, it could be like <maul> or <crawl>. And if one <s> is enough for <bus> we do not need two in <fuss>. There are many such doublings which are completely unrelated to the basic doubling rule.

My research has established that only around 380 multi-syllabic root words obey the doubling rule, while another 380 words disobey it by having just a single letter after a stressed, short vowel like <melon>, and a further 170 words have unnecessarily doubled consonants like <apply>. Out of the 4000 words with some sort of spelling problem, 1000 involve problems with doubled consonants. It is therefore no wonder that this is the biggest English spelling difficulty. It generates the longest list of words that simply have to be memorised one by one, and causes more spelling mistakes than anything else.

EE - sound

452 words use 6 main patterns:
(been, clean, gene,
machine, protein, fiend)
and some less common ones
(people, me, ski, key, quay)

The /ee/ sound is another significant source of problems, covering about 452 words with spellings like <been>, <clean>, <gene>, <machine>, <protein>, <fiend> and some odder ones like <people>, <me>, <ski>, <key> and <quay>. As with the examples cited earlier there is no reliable rule for deciding when to use which, and you have to learn to spell these words one by one.

Most people learn to spell by copious reading, by simply imprinting word-pictures on their brains. You certainly cannot use phonics to learn to spell English accurately. It can help with learning to read, but even for this the word 'phonics' is not used as elsewhere in Europe, where it means teaching a one-to-one relationship between letters and sounds, not a relationship of one to two, three, or even one to six (eg <tough>, <cough>, <through>, <plough>, <although>, <thorough>).

In other languages the process of learning to read and write by the phonic method is also a predominantly reversible one, in other words a letter or letter-string ('grapheme') spells a sound and a sound is written with that grapheme, such as in German <Ei>, <eins>, <zwei>, <drei>. But that clearly does not apply to the English examples just discussed.

long OO (181 words), long O (161)
Er/ir/ur/ear (195),
short U (68), short E (64),

unstressed vowels (several hundred)
in endings (-er/-or, -ent/-ant,
-ary/-ery, -able/-ible)
and prefixes (in- /en-, de- /di-)

Out of the 4000 words with spelling difficulties of some kind nearly 1500, over a third, contain unpredictable doubled consonants or spellings for the /ee/ sound. The other significant problem areas are: the /oo/ sound as in <blue>, <shoe>, <blew>, <through>, <you>, <to>, <too>. The /o:/ sound as in <cold>, <roll>, <soul>, <bowl>, and the /er/ sound as in <her>, <bird>, <burn>, or <earn>, along with the smaller problems shown in the table above, such as the /u/ sound in <come>, <country>, <flood>, the short /e/ in <friend>, <said> and <head>.

One problem which affects older learners more than young pupils is prefixes and endings, because they tend to occur more on longer, more sophisticated words, for example the unstressed endings <er> and <or>, as in <potter>, <sculptor>, and <-ent> and <-ant> as in <independent> or <gallant>.

**Most alternative spellings
don't cause
reading difficulties:
same /aim, day /grey,
kite /light, by /bye,
stole /coal, her /turn /third.**

The problems discussed so far are the main sources of English spelling difficulties. But I am far more concerned about *reading* problems because I believe that they have the biggest negative impact on people's lives. Anyone who does not manage to learn to read has little chance of learning much about anything, including learning to spell. So reducing the things that get in the way of children learning to read would be my main priority for any reform.

One can probably get by reasonably well in life nowadays even with poor writing skills, but if you have reading difficulties you are going to have some really serious problems. Recent anecdotal reports have suggested that people have failed to take up health screening opportunities because they did not

understand the letter of invitation. Others have not taken their prescription medicines because they did not understand the instructions. Reading difficulties cost us as taxpayers a great deal too.

My first analysis of English spellings identified the words that cause problems for people learning to read and spell English – the 6800 most used English words mentioned earlier. Recently I have investigated mainly what stops children learning to read during their first few years at primary school.

Some spelling problems are not also a reading problem. For example, children have to memorise word by word how to spell the /ai/ sound in <main>, <lane>, <grey> and <day>. Their spellings are unpredictable. But you can teach them that an <a> followed by a consonant and an <e>, as in <mane>, has the same sound as the <ai> in <rain>, the <ay> of <day> and the <ey> of an <e> of <grey>. The pronunciation of those spellings is relatively stable.

Similarly there is no rule for deciding when to use <ite> and when to use <ight> in the spelling. But you can teach children that <ite> and <ight>, mostly have the same sound. That is achievable for reading, although of little help for deciding how to spell a word.

**Reading difficulties
are caused mainly
by the unreliable sounds of
a, ea, i, ei/ie, o, o-e, ou and ow
and unreliable consonant doubling
undermining a-e, e-e, i-e and o-e.**

English reading problems are caused mainly by the spellings shown in the above table. Their phonic unreliability is what makes learning to read English slow and difficult. If you are learning to read a language in which the letters have reliable sounds, you are helped by the spelling system to make

the link between sounds and letters: you see the letter on the page, you hear the sound for it and you write it. In English this is often not the case, making life especially hard for dyslexics and all who come from a background where reading for fun is not the norm.

I would now like to look at table 1 of my handout (p.22)

A
<p>The letter a often has a different sound before ll, l and after w, but not invariably: ball/balloon, talk/balcony, swamp/swam.</p> <p>Standard UK English poses further problems: brand/branch, gas/gasp</p>

The letter <a> is not one of the most problematic but it has some special pronunciation rules. The basic sound is as in <cat>, <sat>, <mat>. But if it is followed by the letter <l> it could have the sound as in <all>, <small>, <tall>, or the sound as in <alligator> and <alley>. After <w> it might be as in <swan> or as in <swam>.

If the exceptions to the basic <a> rule were themselves reliable it would be tolerable. For example you could teach children that <wa> was always as in <swamp> and <swan>. But the existence of exceptions such as <wag>, <swag> and <swagger> make teaching it impossible to teach this as a reliable rule. It is yet another case of individual memorisation.

A-e
<p>is undermined chiefly by missing doubled consonants (famous – famished) and the high frequency words ‘any’ and ‘many’.</p>

One problem which affects both the decoding and spelling of vowels is irregular consonant doubling. It constantly undermines the <diner / dinner> principle. A child who knows this rule, and knows the word <rabbit> is likely to assume that <habit> is pronounced /haybit/. A beginning reader who knows the word <raven> is liable to assume that <ravenous> also has a long /a/.

You can see in table 2 (page 22) that the <dinner> / <diner> rule works well in many words with <a+consonant+e>, such as <age>, <ate>, <fame>, but not in <agony>, <animal>, <anorak>, <famished>. And for the words picked out in red in table 2, <any> and <many>, there is no rule for predicting their sounds. Experienced readers know how to pronounce these words because they read by visual memory, not by decoding. But it can take some time to get learners (of any age) to do so.

So learning to read the letter <a> is impeded by both consonant doubling and unpredictable pronunciation. They both make the teaching of English more difficult, because they occur in common words. If they affected only words that children do not use much they would cause fewer problems. But when they learn to write, for example <an>, <man>, <can>, and <men>, <pen>, <hen>, but then also have to write <any> and <many>, it leads to what psychologists call cognitive dissonance. Or, in layman’s terms, they get confused. It means simply that when something makes no logical sense it is very hard to learn. It can also be very demotivating.

Ea
<p>Ea causes reading problems when not spelling the EE-sound, as in ‘beak, dream, leaf’: breakfast, break, dreamt, deaf.</p>

Table 3 (page 23) shows that the letter combination <ea> makes the long /ee/ sound in many common words, but unfortunately it

does not do so in quite a few others. So anybody trying to devise an underlying rule governing the pronunciation of <ea> cannot do so with any degree of confidence, especially if it is a word that they cannot immediately identify.

This epitomises what makes learning to read English so problematic: there are a great many English words that you cannot read accurately if you do not already know them. Phonics is good for the basics but then you have to contend with all the exceptions, such as <breakfast>, <break>, <dreamt>, <deaf>, and the well known trio of <lead>, <read>, <tear>, which can be pronounced as /leed/, /reed/, /teer/ as well as /led/, /red/, /tair/.

E- e

The **open e** pattern,
as in 'Eden, here, hero, even,'
is undermined mainly
by failure to double consonants
(**enemy, heroine, seven**)
and
'there, where, were'.

The letter combination <e+consonant+e> (table 4, page 23) is also undermined by lack of phonic consistency. If it were always long, as in <even>, <here>, <hero>, it would be easy. But <seven> and <heroine> have a short /e/ sound, not a long one. And three little words undermine the regularity of the <e – e> grapheme more than any other examples: <there>, <where> and <were> because they look as if they should rhyme with the common word <here>, but do not.

I-e

The **open i** undermined mainly
by failure to double consonants
'rise / risen, final / finish'

and some omissions of e
'child, mind, ninth'.

The <i+consonant+e> grapheme (table 5, page 23) is also affected by irregular

consonant doubling. Once again we have exceptions to exceptions: <ild> has mostly a long /i/ sound as in <child>, <mild>, but not in <children>, <mildew>. It is also hard to fathom why the link between <nine> and <ninth> had to be broken in spelling, leaving <ninth> looking as if it rhymes with <plinth>.

Ei and ie

These two spellings are
overlapping and inconsistent:

Ceiling / eight / height,
shriek / pie / diet.

Next we come to a really nasty reading and spelling area (table 6, page 24): the overlap between <ei> and <ie>. One of the worst examples of inexplicable spellings is the word <height>. Many people will tell you that English often reflects the derivation of words, or the relationship between words. This might explain the presence of <igh>. But where does the <e> in <height> come from? Is it just by analogy with <weight>, despite the different pronunciation?

All the spellings in table 6 show are very confusing for young children.

The many sounds of o

make it
the **worst letter** for readers,
by itself (**on, only, once, other**)
and
as part of **o-e, ou, ow and oo**.
(Tables 7, 8, 9 and 11)

Although the problems discussed so far are quite bad, the most problematic vowel is probably <o>. Not only is it a problem when used on its own, as in <only>, <one>, <other> (table 7, page 24), but also when it is part of graphemes such as <o+consonant+e> (ibid), <ou> (table 8, page 25), <ow> (table 9, page 25), and double

<oo> which can long be as in <boot> or short as in <foot> (table 11, page 26). Even a cursory glance at how <o> behaves reveals the almost total absence of alphabetic regularity.

O and O-E

The sounds of **o** and **o-e** are variable and overlapping:

comfort / come / home
whom / move / post.

The phonic reliability of <o> was first undermined a very long time ago. Early scribes came to think that too many consecutive down-strokes in manuscripts, such as would result from the logical spelling <munt^h> (eg <munt^h>) for 'month', made decoding more difficult. To improve readability they therefore replaced many <u>s with an <o>. Table 7 (page 24) shows that non-phonetic <o> is generally next to an <m> or <n>: <comfort>, <compass>, <fishmonger>, <Monday>.

A different phenomenon affected words like <book>. It was first spelt <boke> then <booke>, then lost its final <e>. Many English spellings have similar histories. For example the present spellings <fairness>, <darkness> started as <fairnes>, <darknes>. They were then respelt as <fairnesse>, <darknesse>, then went on to lose the final <e> again, but retained the double <ss> for no obvious reason.

OU

In **109** common words with **ou** which children meet quite soon after beginning to learn to read only **53** have the dominant sound.

And these are not all the problems with the letter <o>. For some of the letter combinations discussed so far there is a predominant pronunciation. For example

with <ea> the long /ee/ pronunciation is the most common. But when it comes to <ou> (see Table 8, page 25) it is impossible to say what the basic pronunciation rule is, for it has a different sound almost as often as the main one found in <shout out loud>: <through>, <country>, <couple>, <rough>, <tourist>, <route>. Every time children comes across <ou> they are therefore likely to be nervous about its pronunciation.

OW

Ow has no reliable sound:
slow now, lower shower.

It adds to spelling problems too:
stone, moan, blown.

Even worse is the grapheme <ow> (Table 9, page 25), which can be either /o:/ or /ou/. When you read the words as wholes, as in <slow>, <now>, <lower>, <shower>, you can read them, but it is impossible to decode the <ow> grapheme itself. Furthermore <ow> is also involved in three really problematic homographs <bow>, <row> and <sow>, as well as further spelling uncertainties, such as <own>, <loan> and <bone>.

And the name of the letter <w> adds to the confusion. In its current printed form it generally looks like a 'double v', but we call it a 'double u'. This is because the letter <v> joined the English alphabet relatively late and took a while to become established. Before its arrival <u> was used to spell both the /u/ and /v/ sounds: the two shapes were merely variants of the same letter. A <w> was literally a 'doubled <u>', and, like all doublings, used inconsistently. In early English many words like <toun / town> and <doun / down> were interchangeable.

Surplus letters

**They make learning to read harder:
answer, board, ghastly.**

**And they also dilute the principle
of open and closed vowels :
gave – have, care – are (car).**

Table 10 (page 25) shows a number of common words which are tricky for beginning readers because they contain obviously superfluous letters. They undermine a variety of spelling patterns. For example if you consider the word <gone>: is this an exception in the ‘o+something+e’ rule, or is <gone> just a surplus letter problem?

Because English has such a variety of inconsistencies some words fall into more than one category of irregularity. Irrespective of this, ‘surplus’ letters are just that - surplus, and make learning to read and write unnecessarily harder.

For example, the ‘vowel + consonant + e’ rule, as in <brave>, <gave>, <drive>, <hive>, and <drove>, <strove> would be much easier to grasp if it was not for the spellings of the very common words <have>, <live>, <gone>, <love>. Even just dropping the surplus <e>, giving <hav>, <giv>, <liv>, <gon>, would already be a significant improvement for young readers.

oo, u, g, qu, ch, ai, au, y

**Their alternative pronunciations
make several small groups tricky:
food /good, dull /full, get /genie,
question /quay, march /ache,
paid /said, autumn / aunt,
any /deny, bicycle /cycle**

Tables 1-10 show all the main sources of reading difficulties. Table 11 lists some smaller sets of exceptions to general patterns. The digraph <oo>, for example,

spells mostly the long sound, as in <soon>, but not in <book> or <foot>. The <u> in <dull> and <gull> is mostly regular, but not in <bull> and <full>.

Oddities:

**There are also
a few highly exceptional spellings
with variable pronunciations:
the/he, bruise/ build,
people/leopard, goes/does,
yes/as, close, use.**

The final table (Table 12, page 26) shows a small number of words with really exceptional and little-used spelling patterns. For example, only the common words <be>, <he>, <me>, <she>, <we> spell a final long /ee/ sound with the letter <e>. Unfortunately, this is pronounced differently in <the> which is the most often used English word.

Summary

**Around 800 words
have potential reading problems
(including 158 missing and 31 surplus DC's).**

**They make around 500 others
harder to read as well.**

In all there are roughly 800 very frequently occurring words with potential reading problems. This includes words with missing double consonants or surplus letters, all words which depart from basic rules of the English spelling system, including the <dinner> / <diner> principle. And out of the ca 800 words in the tables above, there are 189 that have nothing more wrong with their spelling than surplus letters. And that excludes words which would need further modification, such as dropping the surplus <a> in <meadow>, which really requires the <d> to be doubled too (meddow).

Apart from needing more individual attention, these 800 words make roughly 500 other words trickier to read as well. For example the pointlessly doubled <n> after the unstressed <a> in <annoy> confuses beginning readers when encountering <annual>. The divergences from basic rules help to undermine confidence in reading and writing words which do obey the rules as well.

The phonic irregularities in the 800 words above are costing us more than anything else, because they impede children's progress in learning to read English in their first few years of schooling and help to put quite a few off all learning for the rest of their lives. Those spellings are the reason why on average our children take 3 years to learn to read while Finns need just 3 months. Not only that, by age 11 one in five children in the United Kingdom and USA are still not reading well enough to cope with secondary school.

The consequences of this are becoming well known. The pupils who start secondary school unable to read properly tend not to learn much before they leave at 16. Their secondary education ends up mostly wasted. That is a huge cost: all that teaching time, all that effort, and they leave with hardly anything to show for it. The irregularities of English spelling therefore undoubtedly incur

heavy teaching and learning costs as well as social and monetary costs.

Educated native speakers of English cannot readily appreciate what many English-speaking children have to go through. They learned to read fairly easily and can rarely remember how they learned. The foreign languages they remember learning invariably had more logical spelling systems, because no other alphabetic language has an orthography which is nearly as bad as the English one. Even French, the most taught foreign language in British schools, has better spelling than English. Many French sounds also have several spelling possibilities, but each grapheme usually has just a single pronunciation. For example, <ou> is always the long English /oo/ sound whether in <ou, vous, tout> or <choux>, unlike the English <ou>.

I discovered the difference between learning to read and write with a sensible spelling system like German and a chaotic one like English first hand, because I learned to read and write German and English more or less side by side, in my late teens. I have been aware of the unique and perverse difficulties of English spelling for a long time. Educational developments in the UK and US over the past 15 years have encouraged me to make as many other people as possible aware of them too.

¹ Bell M (2004) *Understanding English Spelling*, Pegasus Educational, Cambridge.

² 'Britons are 'embarrassed' by their spelling'

http://www.spellingsociety.org/media/items/survey_results.

³ HMSO (1921) *The Teaching of English in England (The Newbolt Report)*. London: HMSO.

English reading problems

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The main English reading difficulties are caused by the phonic unreliability of the spellings

a, ea, i, ei, ie, o, o-e, ou and **ow**

and **unreliable consonant doubling**

which undermines the graphemes **a-e, e-e, i-e** and **o-e**.

Surplus letters and a few dozen words with very idiosyncratic spellings add to them.

Table 1. The letter **a** tends to have a different sound **before ll, l** and **after w**, but not reliably so, and for speakers of standard UK English it poses additional difficulties

All, *alligator, ally, alley, ball, ballet, balloon, call, fall, fallen, gallery, gallop, hall, shall, shallow, small, stall, tall, valley, wall, wallet, wallop, wallow, swallow.*

Also, always, bald, chalk, *halve, salmon*, salt, stalk, talk, walk, walnut, walrus.

Waddle, *swagger, wag, swam*, swamp, swan, wand, wander, want, swap, was, wash, wasp, watch, *water*, wax; war, warble, ward, dwarf, warm, warn, warp, *warrior*, wart.

Away, awake, awful, awkward.

Quack, quarrel, quarry, squabble, squash, squat.

Able, cable, gable, stable, table, *tablet.*

Angel, ancient, April, apron, *apiece, apt, apology, alike, alive, alien.*

Change, dangerous, pastry, *strange, angle, dangle, pasty (x2).*

Ah, la, father.

In standard UK English the following 42 words have an **ah sound** instead of the more usual sound of ‘cat, sat, mat’ too.

After, ask, banana, bath, blast, branch, calf, calm, chance, chant, daft, dance, disaster, fast, fasten, flabbergast, flask, gala, gasp, glance, graph, grasp, last, lather, mask, mast, palm, past, path, plant, pyjamas, raft, rather, salami, task, vast, castle, brass, class, grass, glass, pass.

‘Mass’ has a long sound when it means ‘church service’, but a regular one when it means ‘amount’.

Table 2. The **a-e** or ‘open a’ pattern is undermined mainly by **missing doubled consonants** after a **short a** sound (famous – famished). Words containing the *letter v* are invariably tricky for readers because it is generally not doubled (raven – ravenous).

Age, ale, ape, ate*, bake, blame, blazing, brakes, cage, cake, came, cape, crane, crate, crazy, date, drape, face, faded, famous, flake, flame, frame, gale, game, gate, gaze, grace, grade, grape, grate, grave, hate, lace, lake, lame, lane, late, lazy, made, make, male, mane, mate, maze, name, page, pale, place, plane, plate, race, rake, safe, sake, sale, same, save, scales, scrape, shade, shake, shame, shape, snake, space, spade, stage, label, state, take, tale, tame, tape, wade, wake, brave, cave, gave, raven, wave

Any, many, agony, animal, anorak, asparagus, balance, banister, cabin, cabinet, calendar, camel, camera, capital, caravan, carol, caterpillar, chapel,

damage, dragon, fabulous, family, famished, flagon, garage*, glacier, habit, hazard, hexagonal, imagine, magic, manage, palace, panic, radish, rapid, salad, salon, satin, spaniel, vacuum, vanish, wagon, cafe, chalet, elaborate, parachute, gravel, javelin, ravenous, travel

Table 3. Ea spells predominantly the **EE-sound**, but **with** quite a few **exceptions**.

Appear, beach, beacon, bead, beak, beam, bean, beard, beast, beat, beaver, bleach, bleak, bleat, breathe, cheap, cheat, clean, clear, creak, cream, crease, creature, deal, dear, disease, dream, each, eager, eagle, ear, ease, east, Easter, eat, eaves, fear, feast, flea, freak, gear, gleam, grease, heal, heap, hear, heat, heath, heave, jeans, knead, leaf, leak, lean, leap, leash, least, leave, meal, mean, measles, meat, near, neat, peace, peach, peal, peanut, peas, plead, please, pleat, reach, real, really, rear, reason, repeat, scream, sea, seal, seamed, seat, shears, smear, sneak, speak, spear, squeak, squeal, squeamish, steal, steam, streak, stream, tea, teach, team, tease, theatre, treacle, treat, weak, weave, wheat, wreath, year, yeast

Lead [leed/led], **read** [reed/red], **tear** [teer/tare], already, area, bear, beautiful, bread, break, breakfast, breath, dead, deaf, dealt, death, dread, dreamt, early, earn, earnest, earth, feather, great, head, health, heard, heart, hearth, heather, heaven, heavy, instead, jealous, leant, leapt, learn, leather, meadow, meant, measure, pear, pearl, pleasant, pleasure, ready, rehearse, search, spread, steady, steak, stealthy, swear, sweat, thread, threaten, treacherous, tread, treasure, weapon, wear, weather.

(45/61 have just surplus letters)

Table 4. Failure to double consonants after a short stressed *e* is the main difficulty in learning to read words with *e-e*.

Here, mere, cereal, cafeteria, hero, material, series, serious, sphere, zero, there, where, were, complete, fete, equal, female, frequent, genie, genius, ingredients, meter, peter, recent, region, relay, scene, Swede, tedious, theme, these, eve, even, evil, fever, lever.

America, chemistry, emerald, hesitate, medal, metal, pedal, pelican, petal, separate x 2, vegetable, celery, cemetery, definite, derelict, desert, edible, enemy, energy, helicopter, heroine, lemon, medicine, melon, present, recipe, recognise, record, second*, semi, skeleton, specimen, telescope, television, very, clever, ever, level, never, several, seventh.

Table 5. The **i-e** pattern is also undermined mainly by **inconsistent consonant doubling**: (biting, bitten – British), sometimes with further complications (rise – risen – dizzy)

Bike, bite, dice, dive, drive, fine, five, Friday, hide, hike, hive, ice, iron, kite, knife, like, line, mice, mine, nice, nine, pile, pilot, pine, pipe, price, prize, quite, rice, ride, ripe, shine, side, silent, slice, slide, smile, spider, spike, stripe, tide, tiger, tile, time, tiny, trifle, twice, while, white, wide, wife, wipe, wire, wise, write; arrive, astride, bicycle, decide, describe, excited, inside, invite, polite.

British, chisel, cinema, city, continue, deliberate x 2, electricity, figure, finish, hideous, lizard, minute x 2, miracle, miserable, pigeon, pity, prison, rigid, risen, sinister, spinach, video, vinegar, visit, wizard, wizened, driven, given, river, shiver, shrivel, snivel.

Child/children, mild/mildew, wild/wilderness, whilst, climb/limb,

behind, blind, find, grind, kind/kindle, mind, rind, wind/wind, ninth, sign/signature, trifle.

Kiosk, kiwi, machine.

Table 6. The use of *ei* and *ie* is overlapping and inconsistent.

Eight, neigh, neighbour, reindeer, sleigh, veil, weigh, weight
ceiling, receive, seize, weird, either, neither, height, their.
Believe, brief, chief, field, fiend, fierce, friend, grief, handkerchief, mischief,
niece, patient, piece, pierce, priest, relieve, shield, shriek, sieve, thief, view,
die, lie, pie, tie, wheelie, diet, quiet, science, crier, pliers, soldier.

Table 7 This shows that the pronunciation of the graphemes *o* and *o-e* is variable and overlapping (home, come /comfort, post

Blossom, bonnet, borrow, bottom, coffee, corridor, cottage, cotton,
forgotten, horrible, locket, lorry, office, poppy, possible, potter, pullover,
sloppy, soggy, sorry, tomorrow, pocket, rocket, rocky, podgy,
collar, dollar, follow, holly, jolly, lollipop, lolly, trolley, swollen, wholly, boss,
cross, moss, gross

block, clock, cock, flock, knock, lock, rock, shock, sock, off, bottle, gobble,
goggles, hobble, nozzle, topple, wobble, dodge, podgy, notch.

Blond, box, chop, dog, dot, drop, flop, fog, fond, fox, frog, from, god, golf,
got, hop, hot, job, jog, knob, knot, loft, log, long, lot, mop, nod, not, odd,
of, on, pond, pot, rod, rot, shop, sob, soft, song, spot, stop, strong, top,
trod, trot, wrong.

*Among, brother, comfort, compass, fishmonger, front, Monday, mongrel,
monkey, month, mother, nothing, **once**, other, another, smother, son,
sponge, ton, tongue, won, wonder;*

almost, both, comb, do not, ghost, gross, most, oh, only, post, poster,
programme; knoll, poll, roll, scroll, stroll - doll,
word, work, world, worm, worse, worst, worth,

sword, swore, sworn, wore, worn, worry;

tomb, whom, wolf.

Bone, broke, choke, chose, close, cone, cope, cove, dome, dose, doze,
drove, froze, frozen, hole, home, hope, hose, joke, mole, nose, note, poke,
pole, robe, rode, rope, rose, slope, smoke, spoke, stoke, stole, stone,
strode, stroke, those, throne, tone, vote, whole, woke, wove, wrote, fro, go,
no, pro, so, solo.

*Above, colour, come, cover, done, dove, dozen, glove, gruesome,
handsome, honey, love, money, none, one, onion, oven, shove, shovel,
some, somersault, stomach*

improve, lose, move, movie, prove, whose, do, two, who,

to, today, altogether, together, toward, tomorrow,

gone, omelette, scone, shone,

woman - women.

Without doubled consonants after short vowels

Body, column, comet, comic, copy, crocodile, demolish, florist, foreign,
forest, holiday, model, modern, orange, probably, promise, properly, robin,
solid, topic, vomit, honest, rhinoceros, sausage, yoghurt, hover

Table 8. Of the 108 common words with **ou** which children meet quite early in their reading career, only 53 have the dominant sound.

About, aloud, announce, around, blouse, bounced, bound, cloud, couch, count, counter, crouch, doubt, foul, found, fountain, ground, hound, house, loud, lounge, mound, mount, mountain, mouse, mouth, ouch, out, pouch, pounce, pound, pout, proud, round, scout, shout, slouch, snout, sound, south, spout, sprout, stout, surround, thousand, trousers, trout, flour, hour, our, sour, drought, plough.

Although, bought, boulder, brought, cough, could, country, couple, cousin, double, dough, enough, favourite, fought, group, hiccough, mould, moult, mousse, moustache, ought, rough, route, should, shoulder, smoulder, sought, soul, soup, southern, souvenir, though, thought, through, toucan, touch, tough, trouble, would, you, young, wound x 2, courage, course, court, encourage, four, fourth, journey, pour, tambourine, tour, tournament, tourist, your. (25/ 55 others have just surplus letters)

Table 9. Ow has no reliable sound and causes spelling problems (own, moan, stone).

Blow, blown, bowl, crow, flow, flown, glow, grow, grown, growth, know, known, low, mow, mown, own, show, shown, slow, snow, sown, throw, thrown, tow, wallow, swallow.

bow x 2, row x 2, sow x 2 (with two sounds)

Brow, brown, brownie, browse, clown, cow, coward, crowd, crown, down, drown, drowse, eider-down, flower, frown, growl, how, howl, miaow, now, owl, powder, power, shower, towel, tower, town, vow, wow, allow, cauliflower.

Table 10. Common words with **surplus letters**.

Words with **unphonically doubled consonants** (i.e. not keeping a stressed vowel short).

Address, afford, annoy, apply, arrange, arrest, arrive, attention, attract, collapse, collect, connect, correct, dessert, excellent, hello, hippopotamus, hurrah, interrupt, jewellery, marvellous, mattress, mayonnaise, midday, necessary, occasion, settee, suggest, suppose, tattoo, terrific, torrential.

Words with other phonically surplus letters.

Are, clue, give, have, live x 1, every, seven, heaven, engine, exquisite, opposite, advertisement, gnarled, gnash, gnat, gnaw, gnome; ghastly; guard, raspberry, rhubarb, rhyme, rhythm, what, when, which, who, whole, whooping, answer, board, buy, coarse, cupboard, dumb, exhaust, half, halfpenny, hoarse, island, Wednesday.

Table 11. Assorted common words with tricky pronunciations.

Spook	book, brook, cook, cookie, hook, look, shook, took	paid	said,
boot	foot	pays	says
food	good, hood, stood, wood, wooden,	wait	plait
school	blood, flood, wool, woollen, whoosh brooch, door, floor	autum n	aunt, laugh, mauve
gull	bull, bullet, full, pull	picture	secure, manure, mature, failure
blush	bush, push, shush, cushion	any	deny, reply, July
butter	butcher, put, pudding, cuckoo, <i>truth</i>	monke y	obey
super	<u>s</u> ugar, <u>s</u> ure	flew	sew, sewn
get	genie, gentle, genius, germ,	road	broad
give	geranium	bicycle	cycle
danger	giant, ginger, giraffe anger, eager, finger, hamburger, hunger, tiger, target,	forget	ballet, duvet, chalet
quick	<i>qu</i> ay, <i>chequer</i> ed, <i>liquor</i> ice, <i>mosque</i> ,	forwar d	reward
questio n	<i>mosquito</i> , <i>que</i> ue, <i>turquo</i> ise	pixie	anxious
chat	ache, anchor, chemistry, Christmas, echo, school, <i>chef</i> , <i>chute</i> , <i>machine</i> ,		
much	<i>parachute</i>		
cheese	geese, these		
choose	goose, loose, dose,		
phrase	base, case, chase, practise, tortoise, close x2, use x2, excuse x2,		

Table 12. Words with highly irregular spellings and sounds.

be , he, she, me, we	the	eye	
people , leopard	leotard, <i>truncheon</i>	success	soccer
goes , toes	does, <i>shoes</i> , <i>canoes</i>	yes , us, bus	as, has, his
bruise , cruise, fruit, juice, nuisance, suit	build, built, biscuit, <i>fluid</i> , <i>ruin</i> ,		

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Editor's note: the layout of this handout has been slightly modified to fit the format of the Conference Proceedings.

Ms Zuzana Kotercová

The cost of English spelling in primary schools

The subject of my presentation is 'The cost of English spelling in primary schools'. This is based on research which I carried out as part of my degree dissertation at Coventry University, to try and assess the actual cost to teachers, in terms of both time and money, of teaching current English spelling

education, right up to the point at which costs are incurred by society if teenagers cannot go on to further education because of their literacy problems. It was therefore established that the key research would be the cost of spelling in primary schools, and that it would predominantly concentrate on primary schools in Coventry.

Project originally aimed to find out:

- How much time (i.e. money) do teachers spend teaching spelling that could be more fruitfully allocated to some other part of the curriculum.
- How much time is spent on adult/teenage remedial work in FE, in-house, or extramural activities.
- How much does it cost the economy to have people unemployed or imprisoned as a result of basic illiteracy caused by fear of poor spelling.
- How much is spent on books on "How to improve your spelling".
- How much does the government's "get rid of your gremlins" project cost.
- How much time is spent by industry-based remedial work for their employees.
- What are the costs to industry and commerce of insuring that documents produced by them contain correct spelling.

Methodology

- Secondary research
 - Literature review – compelling statistics from KPMG (child leaving primary school with poor reading and writing skills may incur costs from £45,000 to £53,000 by the age of 37) (Desira, 2006)
- Primary research
 - 12 schools in Coventry located in various areas
 - 170 questionnaires

I will start with an outline of the initial aims and ambitions, briefly cover the methodology, the results of the survey, some of the limitations of the project and finally the conclusions. The slide above shows the original project outline. Because of the time restrictions some aspects were left for later research, for example remedial work with teenagers and the way spelling impacts on commerce and employers.

The methodology of the research fell into 2 parts. The primary research was guided by underlying secondary research in the form of a literature review of previous studies on this topic. One of the most interesting items that came out of this literature review was a report by KPMG¹ in 2008 which suggested that a child leaving primary school with poor reading and writing skills can incur costs of up to £53,000 by the time they are 37. The main part of my own research was the primary research and the primary data arising from the survey, involving the 12 primary schools in Coventry. A total of 170 questionnaires were sent out to these primary schools.

Selection process

- Process of learning starts at primary schools
- Reading and writing are vital parts of further education
- Costs of spelling in primary schools
 - Small scale project
 - Concentrating solely on primary schools in Coventry

Results

- 8 schools participated
- 68 questionnaires returned from:
 - Teaching assistants
 - Teachers
 - Head teachers
- Quantified/ unquantified outcomes

The dissertation therefore had to concentrate on a subset of the above original aims. The rationale for the selection was to focus on the initial costs that are incurred when a child is first trying to learn, as this is the very starting point of the process of learning to spell. Reading and writing are a vital part of all levels of

From the 8 schools which participated (out of the 12 invited) 68 questionnaires were returned, a 40% return, which is a good return for such surveys. The returns came back from three levels of teachers: teaching assistants, teachers and head-teachers. The hourly costs of teaching assistants were difficult to assess as they were not on the same pay scales as those used in the main calculations.

Quantified results

- Calculations based on:
 - Pay scales (Main, Upper and Leadership pay scales)
 - Hourly rate
 - Averaged information obtained from questionnaires presuming that:
 - Average teacher's working week is 44 hours
 - Most of the teachers (70% of respondents) teach literacy five days a week, an hour per day
 - Spelling is taught mostly in every literacy lesson
 - Quarter of literacy lesson is devoted to teaching spelling

Nonetheless some useful quantification was possible from the returns. The quantified results were based on the three pay scales involved: the 'main', 'upper' and 'leadership' pay scales, which depended on the responsibility of the teachers in the primary school. From these pay scales hourly rates were calculated, which were then combined with the number of hours spent on spelling as shown in the questionnaires. These calculations made some assumptions, based on the findings in the questionnaire, such as:

- the average teacher is working 44 hours a week;
- most of the teachers (70% of the respondents), teach literacy five days a week, and an hour a day;
- spelling is taught in most/all of these literacy lessons;
- a quarter of the literacy lesson usually is devoted to spelling.

Cost of teaching spelling per teacher (£)			
Scale	N ^o of staff	per hour (£)	per year (£)
M1	4	2.32	452.4
M2	12	2.50	487.5
M3	20	2.71	528.45
M5	4	3.15	614.25
M6	2	3.40	663

U3	4	3.95	770.25
L1	1*	4.04	787.8
L2	1*	4.14	807.3
Weighted average cost of teaching spelling per teacher (£)		2.85	556

The table above shows the figures from the questionnaire which were used in the calculations. The final figures in the bottom row were calculated as a weighted average and seem relatively modest. They show that a primary teacher's direct salary costs attributable to teaching spelling amount to, on average, £2.85 an hour as part of the hours spent on teaching general reading and writing; however, taking into account the number of hours involved, this amounts to £556 per year.

According to a report from the Department for Children, Schools and Families² there were 183,762 primary school teachers in England in 2000. Multiplying that figure by the average of £556 derived above provides a national cost for the teaching of spelling in primary schools of some £102 million in net salary costs (to which should be added about 20% in on-costs, employers' pension contributions etc). And that is only in primary schools: to complete the national picture one must add the costs of any spelling and literacy work undertaken by 185,429 secondary school teachers, employers, remedial teaching, evening classes.

In addition to the direct questions included in the survey, further information arose from the replies which could also indicate extra costs, e.g. comments such as '*spelling is taught usually as separate lessons*' which would indicate that the children receive specific spelling lessons on top of the literacy lessons. Similarly '*spelling is taught in daily phonics sessions*', would indicate some potential high costs to spelling instruction.

Unquantified results

Extra support provided for parents
Almost 60% of teachers mentioned one of the following:

- Teacher led parent groups
- Workshops for parents
- Parents evening
- Worksheets, leaflets and booklets

Allocation of time spent on spelling elsewhere

- 53% of teachers agreed with this statement

Apart from the quantifiable results in the responses there were several general comments, especially in relation to the question which asked whether the teachers were aware of any extra teacher support to help the children with spelling either from the school or from the parents. What came out of the responses was that almost 60% of teachers actually claimed that there were activities variously described as:

- teacher-led parent groups
- workshops for parents
- parents' evenings which included extra help for parents so that they could help with their children's study
- worksheets, leaflets or booklets.

Although these may seem to be different names for the same thing, this itself indicates that the respondents regarded them as an identifiable local scheme outside the formal defined curriculum. A further noteworthy response was that 53% of teachers agreed with the assertion that the allocation of the time that would normally be spent on spelling would be spent more usefully on other parts of the curriculum.

Limitations of the research

- Pioneering project – lack of comparison
- Size of the sample
- Timing – end of the year
- Form of research - questionnaires
- Limited resources (transport etc.)
- Not all the pay scales represented
- Accuracy issues – no clear-cut times allocated to spelling
- Generalizations

This was a fairly small-scale survey, concentrated within the City of Coventry, yet the number of responses received was certainly sufficient to validate the analysis. However a larger survey and response rate may remove any skewing of the averages arrived at. Future surveys should be held away from the very busy end of the academic year. A major constraint was the fact that this was a pioneering survey theme, so there was little prior research against which to benchmark the findings.

Conclusion

- Outline of methodology of the research
- Secondary research – statistics
- Primary research - approximate figure of cost of spelling per hour
- Current and difficult form of spelling deeply embedded as seen in a comment of one of the respondents:
"Do not understand the question, spelling is not going to be simpler."

This presentation has outlined the methodology of the research work, where it derives from, the secondary and primary research, and some of the constraints.

In conclusion I will show an intriguing and delightful comment left on one of the questionnaires. In reply to the question '*if the spelling was simpler could the time be allocated somewhere else?*' the respondent replies, in some puzzlement, that: '*I do not understand the question, spelling is not going to be simpler*'. This very brief note shows how deeply embedded the feeling is that the current English spelling would be quite hard to change; indeed the concept of changing the spellings has simply not occurred to this teacher who is spending many hours a year teaching its complexities.

Removing this perception, and tackling the costs identified above in actually teaching the current system, shows that there is major scope for significant reduction in costs, and reallocation of resources to other vital areas.

Copies of Ms Kotercová's dissertation are available on request to the Spelling Society, and can be downloaded from the Society's web page or from
<http://www.phon.ucl.ac.uk/home/wells/kotercova.pdf>

¹ KPMG Foundation: 'Every child a reader', 2008, <http://www.everychildareader.org>,
<http://www.kpmg.co.uk/about/foundation/cp.cfm>.

² <http://www.dcsf.gov.uk/rsgateway/DB/SBU/b000222/030-t1.htm>.

Professor John Wells
Emeritus Professor of phonetics, University College
Why do we need pronunciation dictionaries?

Why do we need
pronunciation dictionaries?

John Wells
Coventry 2008 06 07



I have to start with a confession: I am one of the people who profits from the confusion that is English spelling because I am the author of a pronunciation dictionary. If our spelling system were not so opaque and inconsistent we really would not have much need for a dictionary whose main concern is pronunciation.

If our spelling system were not so opaque and inconsistent, there would be very little need for a dictionary devoted exclusively to pronunciation.



...nor for indications of pronunciation in general dictionaries.

...yet we know that checking the spelling is the commonest reason for native speakers of English to use a dictionary.

Native speakers know how to pronounce words. But they are often not sure how to write them.

embarrassing? embarrassing?
accomodation? accommodation?
definately? definitely?
potatos? potato's? potatoes?
their? there? they're?
its? it's?



The publishers of one of my books, Longman's, have published many dictionaries and have carried out research into, for example, what people use dictionaries for. It was somewhat surprising that this research showed that the most frequent reason given by English people for using a dictionary is to check the spelling of a word.

The problems faced by the native speaker are rather different from those faced by the learner of English as a foreign language. Native speakers know how to pronounce words but may be unsure how to read and write them, whereas for learners of English as a foreign language it is normally the other way round: they have a good visual picture of how a word is written but they are not sure what the appropriate sounds are.

embarrassing	24 million Google hits
embarassing	4 million

tongue	179 million
tounge	5 million
tonge	1.4 million
tounge	1.1 million

NB two possible pronunciations.

This is web pages,
not chat rooms!

Let us now look at some typical problems for native speakers of English. How do we spell 'embarrassing', 'accommodation' or 'definitely'? It rather shocks me that some of my students get these wrong, as you would expect students of linguistics at a university degree level not only to know how to spell but also to be aware of the relationship between, for example, 'definite' and 'definition', in contrast with 'considerAte' and 'considerAtion'. The related words indicate clearly what the appropriate vowel is, but most people do not have this knowledge until it is pointed out to them; so although the clues are there they are not actually very much use.

Another universally common difficulty lies in plurals of words whose singular ends in a vowel; for example how do we spell the plural of 'potato'? Just as common are the difficulties which arise when words are pronounced the same but spelt differently, such as 'their, there, they're', making them a big problem for many. Even people who regard themselves as literate make mistakes when choosing between 'it's' and 'its', including many language specialists.

A search on the web for incorrect spellings showed, for example, 24 million cases where 'embarrassing' was spelt right, 4 million where it was spelt as 'embarassing', and a further 1.4 million with 'embarrasing', and almost 100,000 with 'embarasing'.

Rather more strikingly were the misspellings on the web for the word 'tongue': the commonest misspelling was <tounge>, perhaps under the influence of 'young' with some sort of awareness that an extra <e> is required somewhere. The other

two possibilities <tonge> and <tounge>, were not so widespread. This is a good word to consider as it has two possible pronunciations. Although the mainstream pronunciation is /tʌŋ/, rhyming with 'young', there is a significant minority in Britain who say /tɒŋ/, rhymed with 'long'. So in any sort of reformed spelling you would probably need to be aware of that kind of complication.

These statistics come from permanent web pages, not from casual chat-rooms. If you counted spellings used in chat-rooms, where conversations are fairly instantaneous, the figures for the incorrect spellings would be very much higher.

native speakers tend to produce
pronunciation spellings



So what native speakers often risk doing, when they know the pronunciation but not the spelling, is to produce 'pronunciation spellings'. Shopkeepers' signs are notorious for this. So here are some from greengrocers: <obo-jeans> and <monge-two>. British readers and shoppers can probably work out what they mean, but it is not so obvious for Americans and speakers for whom English is not the native language. The first word, <obo-jeans> is 'aubergines', drawing on spellings in <window> (where the <o> is pronounced /ə/) and 'jeans' and reflecting the English pronunciation /'æʊbəʒdʒiːnz/ rather than the original French /obɛʁʒin/: we anglicise the pronunciation but not the spelling. Americans call aubergines 'egg-plant', so they find it even more puzzling.

Another example is <monge-two>, which I am sure you can see is the French name <mange tout>, ie 'eat all of it'. I understand that Americans call these 'snow peas' so they may not immediately recognise it.

Compare the situation with Swedish and many other languages where words borrowed from a foreign language have their spelling changed to accord with the way it is pronounced in your own language. For example in Sweden the word 'restaurant' is spelt as <restorång> because that is how the Swedish pronunciation would be spelt.

Learners of English
as a second or foreign language
can see how a word is spelt.
They mainly need to know how it is pronounced.

They tend to produce spelling
pronunciations

broad ?
front ?
weather?

My work largely concerns students and speakers of English as a second language [ESL or E2L] or English as a foreign language [EFL]. The difference between ESL and EFL is that students in countries like India or Nigeria are considered to speak English as a *second* language because it is the administrative language of their country: for example there are newspapers in English published for the native population there. Whereas in Germany, France, Japan or China English is a foreign language because it is not in general the native language of anybody there nor the language of administration.

Learners of EFL can see how a word is spelt but want to know how to pronounce it. For example, the word spelt <broad> looks as if it ought to rhyme with <road>. If we listen to Spaniards, for example, 90% of the time they will say some kind of /o/ sound here, but it will be the same sound as in <road>. Native speakers of English, because they know how to pronounce the words before they read them, are not misled by the spelling.

Let us consider the word which is spelt <front>: we have heard in the previous presentations that words such as this were a problem for early scribes, since the

combination 'run' would have been difficult to read in their script: <run>. So they used the letter <o> instead of <u> so that it would break up the sequence of vertical lines, but of course this then seems to imply that it is pronounced with an /o/ sound, rhyming with rather than with <hunt>. One of the exercises we give to students of English as a foreign language who are specialising in phonetics is to take a test known as 'transcription from orthography'. In this test we give them a passage in ordinary spelling and they have to convert it into phonetic symbols, showing how it would be likely to be pronounced in English. And this throws up a very large number of errors of this kind. This is revealing because it means that the people taking the test, who are usually quite expert in English by the time they come to us, have these wrong conceptions – it is not that they are failing to hit the right sounds due to some inability to articulate them, but they are actually aiming at the wrong sounds in the first place, or not knowing which is the right sound in which word: the spelling misleads them.

One of my MA students, confronted with the spelling <weather> assumed that the digraph <ea> must have the same sound as in <idea> 'making one wonder how she had pronounced it before she came across the spelling: fortunately it is close enough for us to understand. If you feel that all that matters is being understood this may seem unproblematic; but I think there *is* a problem there, and in hundreds and thousands of other words. It makes learners of EFL prone to 'spelling pronunciations'.

English as a second language [ESL] has a little problem which does not apply to EFL: there is a plausible argument that the form of English that they use should be treated as their own language, not as British English. So if they are Nigerians or Indians, and they have an established local pronunciation, they can go on using it. Nigerians and Cameroonians for example do not have an /e/ sound in the first syllable of the word <jeopardise> but pronounce it as if it were <jopardise>, taking this from the <o> in the

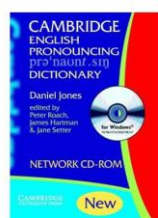
digraph <eo>. It is rather like the different English and American pronunciations of <tomato>: we do not have an individual choice about this, but conform to the communities we come from or live in. This applies in 'second language' situations, but not in 'foreign language' contexts.

Learners of English
as a second or foreign language
can see how a word is spelt.
They mainly need to know how it is pronounced.

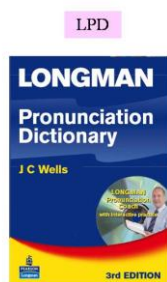
That is why pronunciation needs to be
covered in bilingual and EFL dictionaries.
Better still, use a pronunciation dictionary.

The market is large enough
to support three rivals.

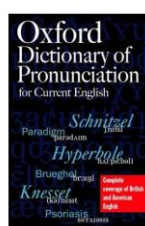
That is why pronunciation certainly needs to be covered in bilingual and EFL dictionaries. Better still is to use a pronunciation dictionary that is devoted exclusively to problems and questions of pronunciation. This is my work, Longman's Pronunciation Dictionary, but the market is actually sufficiently large and strong to support three rival products.



EPD



LPD

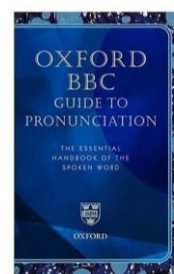


ODP

One is the 'Cambridge English Pronouncing Dictionary'¹, which started life nearly a hundred years ago as Daniel Jones's 'An English Pronouncing Dictionary'², a very famous and influential work. Another is the recent 'Oxford Dictionary of Pronunciation for current English'³. A third is my own Longman Pronunciation Dictionary⁴.

When Dent's, the publishers of what is now the Cambridge work, were looking for a new editor after the death of the previous editor, they were reluctant to make the changes I requested. At the same time Longman were trying to enter this market, and they approached me and permitted me to design what I believed was a much better approach. Subsequently Dent sold their dictionary to Cambridge, and Cambridge brought in a new editor who actually adopted nearly all of the changes which I had unsuccessfully proposed. Which is good because the result is a better dictionary.

plus one
specialist
guide



There is also the 'Oxford BBC Guide to Pronunciation'⁵. This is a specialist's guide, in that it does not attempt to cover anything like the entire English vocabulary: it has a selection of interesting words, foreign words, proper names and so on, that might be of interest and which people tend to query. Because this is produced by people working in the BBC 'Pronunciation Unit' (whose function over many years is to advise announcers and presenters how to pronounce names that are in the news) they are forever compiling lists of the names of footballers, foreign politicians, people who are in the news for one reason or another.



For many languages
there are no pronunciation
dictionaries.



For others, their raison
d'être is principally
foreign words and
proper names.



But let us not forget that for many languages there are *no* pronunciation dictionaries: they would be superfluous. The representation of the pronunciation would merely repeat the information that is already conveyed by the spelling.

On the other hand all languages have a problem with foreign words, and particularly foreign proper names. Everybody is a citizen of the world these days and we have to do something with all these names in foreign languages. We can either make a vain attempt at it which might be hopelessly wrong, or we might feel obliged to try and get it approximately right. And in these circumstances a pronunciation dictionary can help.

There is a pronunciation dictionary for German, called 'Das Duden Aussprachewörterbuch', by Professor Max Mangold⁶, who, even though retired for many years, is still working busily. He covers the entire basic German vocabulary, but of course you cannot put all the compounds in because they are limitless. He has a very different approach from that which I adopted: his aim is to standardise German pronunciation, to tell Germans how they *ought* to pronounce words. Which means that he does not give variants, except in a small number of cases; he just gives the one pronunciation which he considers to be correct. This fits in with the general attitude among teachers in Germany, who, as with spelling, and with grammar, feel that it is their job to teach a standard language, and to lay down exactly what form it takes.

So just as the rules of German spelling and the written language are very precisely listed and studied, so also is pronunciation. They like to know where they stand on the 'correct' version. Even if they know of a book or variant which is different (for example colloquial pronunciations), they do not expect or want this to be included in their pronunciation dictionary. On the other hand regard I regard my role, amongst other things, as being to document the state of English at this moment, so that people 100

or 200 years hence can find out how people actually said things at the turn of the 20th-21st centuries.

The French language has its 'Dictionnaire de la prononciation française, dans sa norme actuelle'⁷, which similarly proposes this idea of a standard that the dictionary should lay down. French of course has a spelling that is not entirely transparent. If you learn French at school you will face the writing problem, for example when to add a circumflex and when not, and when to use other various accents. French does of course also have a few misleading spellings, though nowhere near as many as English. Examples include <poêle> (frying pan) which is pronounced /pwɑl/ though it looks as if it ought to be /pwɛl/.

For Italian there is the 'Dizionario d'Ortografia e di Pronunzia'⁸ a spelling and pronunciation dictionary of Italian, most of which is indeed superfluous. The reason for this is probably that Italian is only quite recently standardised (this book is now some 30-40 years old) and clearly the authors then still felt a need to instruct the Sardinians or the Sicilians or indeed other regional Italians what they ought to do. There are still variations within Italian, for example whether the <zz> in words such as <mezzo> and <palazzo> should be pronounced /metso/ or /medzo/, /palatso/ or /paladzo/; and whether the /e/ sounds in /venti venti/ ('20 winds') are the same or (as many speakers feel) different; those who are concerned about such issues will find the answer in this dictionary.

A common problem for foreign learners of Italian relates to spellings in which a digraph is used for a single consonantal sound, since the digraph is not doubled in the spelling when the sound itself is doubled in the pronunciation. For example when do you pronounce the /tʃ/ sound as a single sound and when do you say it double, or similarly the /ʃ/ and /n/ sounds (spelt <gli> and <gn> respectively).

Why use a specialist pronunciation dictionary?

- for authentic, up-to-date information about pronunciation and phonetics
- for pronunciation variants, not just one pronunciation per headword
- for inflected and derived forms
- British and American versions
- for **proper names**: people, places, products, characters in fiction and mythology, commercial companies, products and brands
- for spelling-to-sound rules



Why, then, use a specialist pronunciation dictionary? First of all to get authentic and up-to-date information about pronunciation. But how does one define ‘authentic’? I mentioned earlier the problem of whether a dictionary should document variants in the language or should lay down a standard. In practice everybody who writes a dictionary has to consider both, because they are faced with a chaos of variability out of which they have to distil something that is teachable and learnable for the learner. I have always regarded it as a useful thing for the learner if the dictionary covers phonetics as well as pronunciation, so I provide pages telling the reader what a ‘glottal stop’ is, when is one used, what assimilation is, some examples of assimilation and so on.

My conviction is that pronunciation variants must be included, not just one pronunciation per headword. My dictionary seems to have been the first British dictionary in over a century to include the pronunciation /baθ/ with a short vowel rhyming with <hath>, alongside /ba:θ/ with a long vowel rhyming with <hearth>. Since half the population of England pronounce the word that way, with a short vowel, surely it ought to be included, not to mention all the Americans who do the equivalent thing: it seems scandalous that dictionaries have traditionally been so limited geographically and socially by including only the pronunciation used by a

particular sector of the population. Including variants can complicate matters: it means the foreign learner is now faced with different possibilities rather than just one. But it also means that when somebody listening to real English hears a speaker say, for example, /tʌŋ/ for <tongue> with an /ʌ/ sound, or /ba:θ/ rhyming with <hath>, but they cannot find out why from their dictionary, they come to my dictionary and this pronunciation *is* in the dictionary. This makes them feel happier, it removes some of the worries during the hours learning English which can arise when they come across things that do not accord with their reference books. Furthermore, given the position of American English in the world it is obviously very important to give proper attention to American English as well as to British English pronunciations.

The pronunciation of proper names is a big issue. All these names of people, places, products, characters in fiction, characters in mythology, commercial companies, and commercial products. There are many of these and people probably want guidance on how to say them. And not just now: in 300 years time people are going to want to know how we *did* pronounce them now, because by then they will probably be entirely obsolete. For example the word ‘mazawattee’ - or was it pronounced as if ‘mazawOtti’ - is now obsolete; those of you who are round about 70 years old may remember this brand of tea, that used to be very widely advertised, but can you remember which pronunciation was used?

Spelling-to-sound rules exist to some extent. I shall now show you some of them and give the principle and their exceptions: it can be useful to make lists of rules, their exceptions, the exceptions to those exceptions, and so on.

Glottal stop

A **glottal stop**, symbolized **ʔ**, is a PLOSIVE made at the glottis (= made by the vocal folds). In English it is sometimes used as a kind of **t**-sound, and sometimes has other functions.

- 1 In certain positions **ʔ** may be used as an allophone of the phoneme **t**, as when **pointless** **ˈpɔɪnt ləs** is pronounced **ˈpɔɪnʔ ləs**. This is known as **glottalling** or **glottal replacement** of **t**. It is condemned by some people; nevertheless, it is increasingly heard, especially in BrE. Sometimes the glottal articulation accompanies a simultaneous alveolar articulation.

- 2 **ʔ** is found as an allophone of **t** only

- at the **end** of a syllable, and
- if the preceding sound is a vowel or **s**

Provided these conditions are satisfied, it is the following sound is an obstruent

football **ˈfʊt bɔːl** → **ˈfʊʔ bɔːl**

outside **ˌaʊt ˈsaɪd** → **ˌaʊʔ ˈsaɪd**

that faint buzz **ˌðæt ˈfeɪnt ˈbʌz** → **ˌðæʔ ˈfeɪnt ˈbʌz**

or a nasal

atmospheric **ˌæt məs ˈfer ɪk** → **ˌæʔ məs ˈfer ɪk**

T-voicing

- 1 For most Americans and Canadians **t** is a voiced sound. Where this is the usual sound, the **Cambridge Dictionary** by the symbol **ɹ̥**.

- 2 Phonetically, **ɹ̥** is a voiced alveolar tap, also like the **r** of some languages. For their **d** in the same environment, so **t** is the same as **shudder** **ˈʃʌd ɹ̥**.

Here is part of one of the big page spreads. There are actually two columns there: one about the glottal stop and the other about American ‘t-voicing’. We shall first look at glottal stops. In words like ‘pointless’ it is actually very common to pronounce it as **/ˈpɔɪnʔləs/** with a glottal stop (represented by the symbol ‘ʔ’) instead of the **/t/**; it is not in any way ‘not RP’. There are some rules for where you can or should do this: **/ˈfʊʔbɔːl/** (football) rather than **/ˈfʊtbɔːl/**, **/ˌaʊʔˈsaɪd/** (outside) rather than **/ˌaʊtˈsaɪd/**, **/ˌðæʔ ˈfeɪnt ˈbʌz/** (that faint buzz) rather than **/ðæt ˈfeɪnt ˈbʌz/**, and so on. I hope this does not come as a surprise to you: speakers of English who do not really know very much phonetics tend to think that you ought to pronounce each of these as a fully articulated **/t/**, but you would sound very prim and proper, very prissy if you did that. The last one you will see in the extract above is <atmospheric>, which in practice is pronounced **/ˌæʔməʃˈferɪk/**.

Now the business of American ‘t-voicing’, that is the voicing of **/t/** so that it sounds like a **/d/**. You can only see a bit of the page above, but the phenomenon explains how British **/ˈsɪti/** (city) gives American **/ˈsɪdi/**. And British **/ˈʃʌtə/** (shutter) gives American **/ˈʃʌdə/**, which gives problems for Americans because they then have two words pronounced **/ˈʃʌdə/**, one of which corresponds to the English spelling ‘shutter’ and the other to ‘shudder’. This was brought forcefully to my attention when I was reading an American novel in which somebody was described as giving ‘an involuntary shutter’, spelt with two <t>s. If I had not known enough about phonetics to interpret the sound, I would have wondered what on earth this person was on about – perhaps window coverings being launched?

breath **breθ** breaths **breθs** (!)
'breath test

breath|y 'breθ |i ɹiə r l ə ɪ l ɹ ɹ iəst l ɪst l ɛst wɪly ɪ lɪ ə l i
vɪnɪss ɪ nəs ɪ nɪs

breathalys|e, breathalyz|e 'breθ ə laɪz -- ə l aɪz ɹed d
ɹer/s tdmk ə/z ɪ -- ɹ/z ɹes ɪz əz ɹɪŋ ɪŋ

breathe **bri:ð** breathed **bri:ðd** (!) breathes **bri:ðz** (!) breathing
'bri:ð ɪŋ

breath **breθ** US **breθ**
breaths **breθs** (!)
'breath test **breθ** US **breθ**

breathable **breθəbəl** US **breθəbəl** 'bri:ð əb ə l

breathalys|e, breathalyz|e **breθ ə laɪz -- ə l aɪz**
breathalysed **d**
breathalysers **ɹed mɑ:k ə/z ɪ -- ɹ/z**
breathalyses **ɪz əz**
breathalysing **ɪŋ**

breathe **bri:ð** US **bri:ð**
breathed **bri:ðd** (!)
breathes **bri:ðz** (!)
breathing **'bri:ð ɪŋ**

Inflected forms can cause problems. If you have ever taught Spanish learners of English you know that they have problems, for example, with the noun 'breath' and the related verb 'breathe', which have different pronunciations for the <ea> spellings. But what is the plural of 'breath'? Many people who are learners of English as a foreign language think it ought to be pronounced /'breθɪz/, with two syllables. For some Spanish speakers this is because the sound of <th> is very similar to <s> (in some kinds of Spanish the sounds are not distinguished). Since they have been taught that words ending in an <s> sound (eg <loss>, <losses>) make their plural by adding a separate syllable, it seems logical to them to treat the seemingly sibilant <th> in the same way. But this is not so, in English it is pronounced /breθs/.

When we come to the verb 'to breathe', what do Spanish speakers feel should be the past tense? They often think it is /'bri:ðɪd/ (two syllables), but it is of course /'bri:ðd/ (one syllable) and similarly <breathes> is not /'bri:ðɪz/ (two syllables) but /bri:ðz/ (one syllable). So in my books I have used the special notation of an exclamation mark to warn users about something that would otherwise perhaps be

a trap, for example 'breaths - breθs (!)' in the extract shown above.

proper names

Athenry, Aung San Suu Kyi, Bussell, Cruyff, Ericsson, Obama, Rowling, Sentamu, Tehachapi, Titchmarsh, Verizon, Whampoa, Zellweger



Proper names do not always appear in dictionaries, but I have felt it worth adding several more in the third edition of my dictionary, some examples of which are shown above. The first example 'Athenry' is a place in Ireland which features in a well-known song, and the name is pronounced /æθən'raɪ/ rhyming with <sky>, which you probably would not guess if you looked at it as being composed of 'At+Henry'.

Aung San Suu Kyi, the female Burmese politician, is now included. Senator Obama, that is a rather timely new entry as he has really come to prominence in time to be covered by this edition. Even here there are certain American / British differences, because Americans generally say /bə'rɑ:k/ though in the UK you will often hear /'bærək/.

People find the <ow> spelling ambiguous in the name of JK Rowling, the author of Harry Potter, as it could be the /aʊ/ as in <how> or the /əʊ/ as in <show>. Does she rhyme with <howling>, or is she like /rolling/? It is the second. And that is information that one can give in a pronunciation dictionary. A place in California visited by Obama is called 'Tehachapi', with the stress on the second syllable, /tɪ'hætʃəpi/, which would not be guessed by those who are not locals. Even American brand names like 'Verizon', which rhymes with <horizon>, could be thought of as rhyming with <venison> if

you did not know better, and could not find it in your pronunciation dictionary.

names of places...

Windsor	^ˈ wɪnz ə - ^{ər}
Gloucester	^ˈ glɒst ə ^ˈ glɔːst ^{ər}
Reading	^ˈ red ɪŋ
Los Angeles	lɒs ^ˈ æŋdʒ ə liːz lɔːs ^ˈ æŋdʒ ə l əs
Santa Cruz	^ˌ sænt ə ^ˈ kruːz ^ˈ sæŋf ə kruːz
Poughkeepsie	pə ^ˈ kɪps i

Names of places give us the well-known traps for tourists, for example Windsor, Gloucester, Reading. As you can see I give a British and an American pronunciation with a final pronounced /r/ in the American version, and likewise in Gloucester, but Reading only needs one pronunciation guide.

The same sort of thing happens with American names, to advise the Brits in case they are not sure. So we include both a British version, and an American one. There is a lot of variation in both countries, but typically Brits have a <z> sound at the end of <Angeles> with a long vowel, while Americans typically have a short vowel and an <s> sound. Although there is a good deal of variability this seems to be the trend.

For Santa Cruz, in California, British tourists think it has the stress on <Cruz>, but Californians themselves place the stress on the <Santa>. This is because there is a little-documented rule in American place names that if you have 'Santa' plus a monosyllable the stress goes on the first word as compared to the two word place names that the stress goes on the second word. So you have <santa MONica>, and <sant ANna>, but <SANTa fé> and <SANTa cruz>. On the other side of America you will find <Poughkeepsie>, pronounced /pə^ˈkɪpsi/, which is a well-known trap for non-locals.

I must just say a word or two here about American lexicography. The problem in America is that the lexicographic

publishing houses are all on the east coast: they are either in New York or they are in the state of Massachusetts, or in that general areas. Americans, despite everything, do not travel all that much and there is enormous ignorance on the east coast about, for example, Californian place names. When I use as my sources dictionaries published on the east coast of the States I find mistakes in quite everyday Californian place names, as I experienced when visiting California as a visitor. For example Sepulveda Boulevard in Los Angeles, which is called not /sepl^ˈveɪdə/ (rhyming with 'invader'), but /sə^ˈpʌlvədə/ with the stress on the second syllable. It is important to record that accurately in the dictionary.

...and of people...

Edward	^ˈ ed wəd -w ^ə rd
Elizabeth	ɪ ^ˈ lɪz əb əθ
Marilyn	^ˈ mær əl ɪn
Douglas	^ˈ dʌg ləs
Davidson	^ˈ dæv ɪd sən
Schwartz	ʃwɔːts ʃwɔːrts
Blair	bleɪ blɛ ^{ər}



People's names are transparent to most due to their familiarity. But <Douglas> for example is potentially misleading, as the <ou> is like the vowel in <trouble> and one or two other words with <ou>, which is quite an unusual value.

...and commercial names

Microsoft	^ˈ maɪk rəʊ sɒft -rə sɔːft
iPod	^ˈ aɪ pɒd pæk -pɔːd
Weetabix	^ˈ wiːt ə bɪks ^ˈ wɪt-
Renault	^ˈ ren əʊ rə ^ˈ nɔːlt
	-Fr [rə nɔ]



Commercial names, iPod™ and the like. Weetabix™ : Generations to come might want to know how we pronounced that?

Even foreign learners today might want to check whether it has the <t> voiced in American English, which it does. And what do you do about <Renault>TM cars? Well we British call them /'renəʊ/ but the Americans on the whole call them /rə'nu:lt/. There are often second or even third alternative pronunciations for many of these words, but the ones I show are the main pronunciations, and the ones that I recommend to foreign learners who are taking either British or American English as their model. When the word is a foreign name it is useful, for some people at any rate, to know what it is in the source language; so in the source language (French in this case) it is of course neither of those, but /rəno/, and that information is also shown in the dictionary entry.

...new for 2008

- Bebo, blogging, chatroom, digicam, eBay, Google, iPod, phish, podcast, unsubscribe, Wi-Fi, Wikipedia
- Asbo, Asperger's, Botox, burqa, chav, fashionista, hijab, latte, qi
- al-Qaeda, Benfica, Beyoncé, Condoleezza, Federer, Lidl, Merkel, Rowling, Sentamu, Titchmarsh

aspen, Aspen 'æspən əs z
 Asperger's 'æspɜ:g əz ɪl - ɜ:g 'fɜ:
 Asperges, æs 'æspɜ:dʒ ɪz ə- ɪl - 'spɜ:dʒ-
 asperity æ 'spɜ:ət ɪl ə-, -ɪt- ɪl -ət ɪl ɪdes ɪz
 Longman

One of the problems for dictionaries is that you need to update them every few years because the language changes: new words, new names. So the list above shows a few examples of the new words that I have added to the latest edition. This is the kind of thing that gets the media's attention, but it is obvious you have got to add the words to do with the internet, and computers, so we add 'chat rooms', 'digicams' and indeed 'Google'TM and so on. And 'Wikipedia'TM, that great source of information, even if some of it is not accurate. More British words like 'asbo', 'burqa', 'chav', 'qi' (pronounced /tʃi/) – meaning 'energy' in traditional Chinese medicine. Proper names too; for example Beyoncé: in England we call her /br'jɒnsei/ but she prefers to be called /,beri:n'sei/ with stresses on the first and last syllables (I am not sure we or

the Americans actually follow her in that, but she is on record as saying that is what she would like to be).

foreign words and names

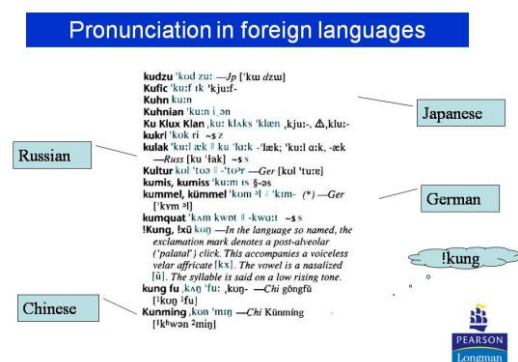
Abu Ghraib, al Qaeda, haram, niqab, and Sharm-el-Sheikh (Arabic), Ahmadinejad (Farsi), Benfica (Portuguese), Federer (German), gaijin and sudoku (Japanese), kimchi (Korean), mojito (Spanish), Putin (Russian), qi and Qingdao (Chinese), Sarkozy and Taizé (French), Terfel (Welsh), Tórshavn (Faroese).

You will see above some foreign words and names to show the kind of coverage one has to make in the dictionary; these are words added to the latest edition of my dictionary. First of all there were a number of Arabic names, for example <Abu Ghraib>. But in all of these of course I did try to give the Anglicisation – British and American – and also the Arabic pronunciation. With Arabic you are confronted again with a big problem of diversity, because Arabic is pronounced in many different ways in different Arabic-speaking countries. Fortunately they can all agree on how to write things, and they all agree on a kind of standard for pronouncing literary Arabic, so that is what they are going to get in my dictionary. It does not matter if the Egyptians or Moroccans say them in a really rather different way: the pronunciation which I show is one which it seems all Arabic speakers are happy to accept from outsiders like me.

<Ahmadinejad> is now included, though of course it is not Arabic but Farsi, ie Persian. Footballers and football teams like <Benfica>, tennis players such as <Federer>, and some Japanese words. <Sudoku> is interesting because it is not actually a Japanese word, unless they have now borrowed it back from us. It is made up from Japanese elements but it is not used to describe that kind of puzzle in Japanese. Have you heard of 'kimchi'? Koreans are terribly proud of this foodstuff: if you have been to Korea you will know it. It is putrid cabbage with a lot of spice in it, and is not to everybody's taste. They think it is absolutely wonderful, they have it with every meal. However there are many

foreigners who do admire it and think it is nice to eat, so we need to know how to pronounce it.

<Mojito>, the drink, with mint in it (or sometimes not). <Putin>, some people think it is pronounced /'pju:tɪn/ on the basis of the spelling, but it is not. <Qingdao> (/tʃɪŋ'daʊ/), <Sarkozy>, <Taizé>. Even closer to home the name of the Welsh baritone Bryn Terfel is actually pronounced /'tɜrvəl/ (first syllable as in 'terror'), the question is how to anglicise it, and /'tɜ:vəl/ is not too bad, but it really must *not* have an /f/ sound in it, it is a /v/ as a single <f> always is in Welsh spelling. I am sure you will know that the personal name 'Dafydd' is pronounced with a /v/, although spelt with an <f>. If you pronounce it /'dæfɪd/ or /'dæfɪð/ you are marking yourself as an outsider.



In the extract above you see part of a page from the previous edition of the dictionary, which I am showing you because it happens to bring together a large number of foreign languages. So there is Japanese first of all in the word <kudzu>, a weed in American gardens. For the Russian word <kulak>, as for many Russian words, you need to know whether the consonants are so-called 'hard' or 'soft', velarized or palatalized, the <l> in <kulak> is phonetically velarized, so pronounced as in English 'fool' rather than

as in the word 'lack'; in Russian this sometimes makes a difference, though it is hard for many English-speakers to recognise the difference.

For the Chinese words we need to know the tones, so /kūnmíng/ is tone 1 followed by tone 2, shown there in two ways: first by the accent marks on the pinyin transcription, secondly by the raised numerals next to the phonetic transcription as shown in the illustration above. It takes quite a lot of hard work discovering all these facts but I felt it was part of my duty to do so.

Then there is this interesting language often known as !kung in English, though properly it is pronounced in way which is transcribed phonetically as /!xũ/. It begins with a click simultaneously with the /k/ sound which is released into a /x/, (/X/ is the sound in Scottish <loch>); then you have a nasalized /ũ/; and the whole word is said with a rising tone. You may not need to know this for everyday use, but people who are interested in phonetics find it absolutely fascinating and my students all like to try and get it correct.

We cannot always do this in a very satisfactory manner. Generally when I am holding a class on the phonetics of a foreign language we like to have a native speaker actually present, so that the native speaker can not only demonstrate what they do, but also make judgements on what the foreigners do. In all languages there is quite a lot of leeway with some sounds and it does not matter if you repeat it exactly, but with other sounds they have to be absolutely exact. A native speaker can make that judgement better than any outsider.

spelling-to-sound rules

- 2** At the beginning of a word, the pronunciation is regularly **s** as in **say** seɪ, **sleep** sli:p, **stand** stænd. (In this position, with spelling **s**, the pronunciation is never **z**.) This also applies in compounds, for example **insight** 'ɪn saɪt. Exceptionally, the pronunciation is **ʃ** at the beginning of the words **sure** ʃʊ: ʃʊə || ʃʊə ʃʊ: and **sugar** 'ʃʊg ə || 'ʃʊg ə and their derivatives (for example: **assurance**, **sugary**).
- 3** In the middle of a word, it is necessary to take account of the letters on either side of the **s**.
- Where **s** is between a vowel letter and a consonant letter, the pronunciation is usually **s** if the following consonant sound is voiceless, **z** if it is voiced. Thus:
s in **taste** teɪst
z in **wisdom** 'wɪz dəm.
 Before silent **t**, however, the pronunciation is **s** as in **listen** 'lɪs ən.
 - Where **s** is between two vowel letters, the pronunciation may be either
s as in **basin** 'beɪs ən, **crisis** 'kraɪs ɪs or
z as in **poison** 'pɔɪz ən, **easy** 'i:z i.
 There is no rule: each word must be considered separately.
 Where the spelling is **s** between a vowel and **ion**, **ual**, **ure**, the pronunciation is mostly **ʒ** as in **explosion** ɪk 'spləʊz ən || ɪk 'spləʊz ən (silent i), **usual** 'ju:ʒ əl, **pleasure** 'pleɪz ə || 'pleɪz ə.

What we call 'spelling-to-sound rules' are an attempt to deduce the sounds from the spellings; there is a lot of detail on the above description but if I had reduced the illustration any more it would be difficult to read, and if the text was any bigger it would not have shown enough to say anything of interest. This is an extract on the rules about the letter <s>, for which the big question in general is whether it is pronounced /s/ or in some other way. First of all we have got these problem words <sure>, <sugar>, and then the difference in the middle of words <taste>, <wisdom>. The <t> is sometimes silent after /s/ as in <listen>. When you get a letter <s> between two vowels there is no rule about whether the /s/ is voiced: on one hand you have <basin> and <crisis> with /s/, and on the other hand <poison> and <easy> with /z/.

For speakers of Spanish or Scandinavian languages this is a particular problem. You get Swedes or Norwegians with really excellent English who nevertheless get this wrong, and pronounce <easy> as /'i:si/ instead of /'i:zi/. If everything else is correct in the sentence it does not matter because the context will make it clear

whether you are talking about (for example) your <niece> or your <knees>, or about some <ice> or some <eyes>. Nevertheless those who teach and learn phonetics in countries such as Norway have to learn about these things. Then there is another problem, that of /f/ and /z/ with words like <explosion>.

aims and objectives

- prescriptive?**
to give advice to those who want to be guided (esp. EFL)
- or
- descriptive?**
to document the present state of the language

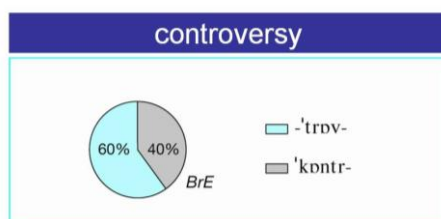
So just to reiterate this general dichotomy and dilemma that we face: do we want to give prescriptive advice to those who want to be guided? Our market research shows quite interestingly that users of our dictionaries who are learners of English as a foreign language do indeed want unambiguous guidance, that is the main thing they use the dictionary for, to look up how they should pronounce a word which

they already know how to spell. They might want to do it for British, they might want to do it for American, they might be interested in both. So it is important to highlight things like this, which in my dictionaries is done by using special colour or special boldness to show my recommended pronunciation. Of course many dictionary users have a kind of reverence towards the lexicographer: the dictionary-writer is the person who knows the answer to everything, which can be rather embarrassing as the compilers rarely know the answer to everything. In some cases they may be simply making a guess.

This brings us on to the other possible approach for a dictionary, the ‘descriptive’ approach, documenting the present state of the language but without necessarily prescribing a preferred alternative. We will now look at the way some words have been changing their pronunciation, which, of course, makes the need for pronunciation dictionaries more pressing, and in the end further undermines the relationship between spelling and pronunciation, thereby increasing the need for spelling update.

Is there a correct way to say *controversy*?

1. 'kɒntrəvɜːsi
2. kən'trɒvəsi



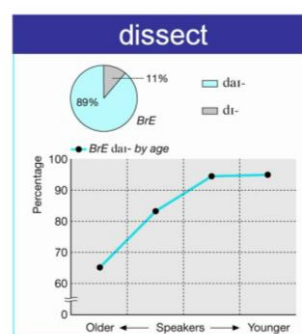
60% go for option 2. 🇬🇧

People formulate such changes in pronunciation in terms of ‘correctness’. They say ‘is there a *correct* way to say this word?’, such as the variant pronunciations for ‘controversy’. One answer is that there is no correct way to say it, just that there are two widely used pronunciations. The first is

with the stress on the first syllable, and the other has the stress on the second syllable. The second appears to have the majority vote in those attending this conference, and this pie-chart shows what I found in general research: a clear majority preferring the stress on the second syllable. It is Important, however, to know that in American English there is no ‘controversy’ about this question, in America the stress is always on the *first* syllable. The other is just a British pronunciation, and probably a fairly recent one.

How should the first vowel sound in *dissect* be pronounced?

1. dɪ-
2. daɪ-



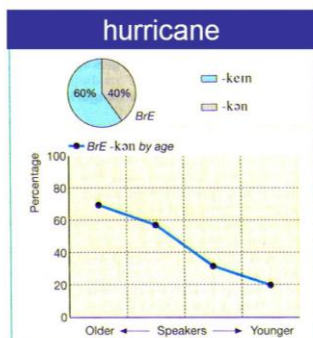
In biology you may be faced with a dead animal which you have to cut up and take to bits. What do you call this? Are you ‘dis-secting’ it with a short first syllable vowel, or are you ‘di-secting’ it with a long vowel? Amongst those attending this conference the majority is for the latter, which is interesting as the <ss> in the spelling clearly suggests a short vowel.

My research found this to be quite sharply age-related. Looking across all age groups there is an overall preference for /daɪ-/ , but the younger the respondent the more marked is this preference: among the younger two age groups, that is everybody under 45 or thereabouts, there was a 95% preference for /daɪ-/ as the first syllable in the word <dissect>.

What's the vowel in the last syllable of *hurricane* ?

1. ə

2. eɪ



What is the final vowel in <hurricane>? Is it called a /hʌrɪkən/¹⁰. or is it called a /'hʌrɪkeɪn/? Among those present today there is a big majority for the first of these alternatives. However, the graph for the pronunciation /-kən/ shows it in decline: that is because this is an older people's pronunciation being gradually displaced by /-keɪn/. Americans always say the latter so it is not an issue for them. The British have tended to weaken this vowel to /ə/, but that is now changing.

Preference polls in LPD3

- three inherited from previous editions
- two new ones
 - AmE: on-line survey by Prof. Bert Vaux, Univ. of Harvard, about 11,000 responses
 - BrE: on-line poll conducted by Pearson Education and me, 800+ responses
- some results show a steady state of diversity, others show age differences (i.e. the situation is changing)

11

The figures in these graphs come from preference polls, asking people which they prefer of two or more pronunciations, and comparing the results of periodic polls over some 20 years, since I started carrying them out for the first edition of the dictionary. I have also made use of similar surveys that other people have done. We had three polls for the previous edition, two British and one American. Now we have two new ones:

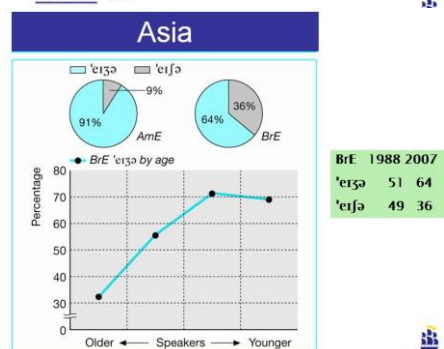
an American one carried out by Prof Bert Vaux, and one that I did together with the publishers. The illustration above shows some of the numbers involved.

Asia (name of continent)

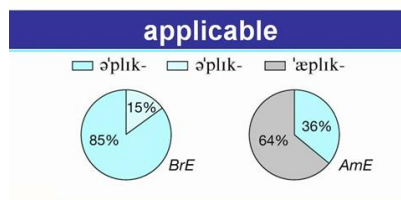
Focus on the -s-.

5a /'eɪʃə/
the consonant sound is as in *pressure*
AYSH-uh

5b /'eɪʒə/
the consonant sound is as in *measure*
AYZH-uh

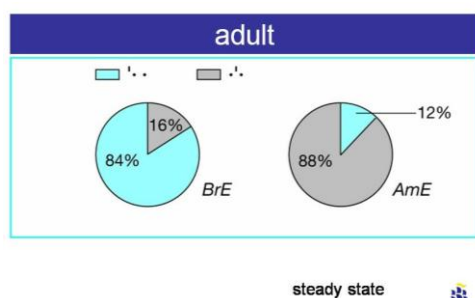


This graph covers the name of the continent of Asia. You can see in the illustration above how I made it clear what I was asking about. First the pronunciation in full IPA transcription, then an explanation in words - eg 'as in *pressure*' - and then a kind of respelling which we hope is unambiguous /AYSH-uh/. Or does it have the sound heard in <measure>, /AYZH-uh/? In this way the people being asked will understand the difference. This is another variation which comes out clearly age-dependent: younger people go for the /ʒ/ pronunciation.

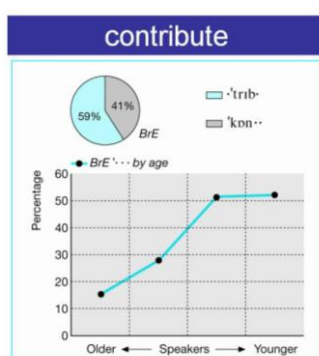


Does 'applicable' have the stress on the second or first syllable? The chart above clearly shows a difference between British and American: the British-English pie-chart goes strongly for the second syllable

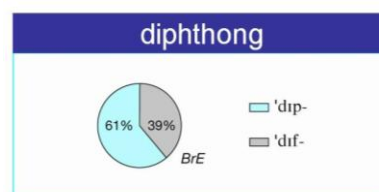
whereas the American-English is about two thirds for the first syllable.



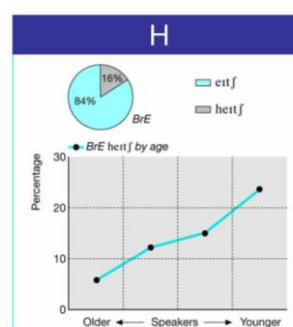
The word 'adult' also shows a difference between British and American: British English prefers the stress to be on the first syllable, but Americans go for the second syllable. However it is important to remember that in each country there is a minority who prefer the other one. So when people ask me which one to learn I simply tell them it does not matter. These are the words you can be very grateful for because whatever you say will be acceptable. This contrasts with the approach adopted in German dictionaries which requires that there is just one correct answer and you need to know what it is. And I would like to see the same flexibility extended towards our spelling: if you want to carry on spelling <friend> with an <i> in it you can do so, but let us not *require* anybody else to do so in future. If you spell it <frend> that should also be fine.



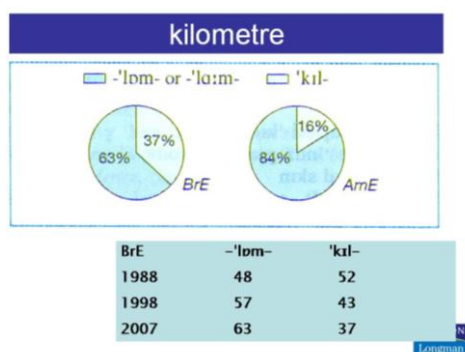
How is the word 'contribute' stressed? Does it have the stress on the first or second syllable? We find that this too is age-related, with younger people preferring the stress on the first syllable.



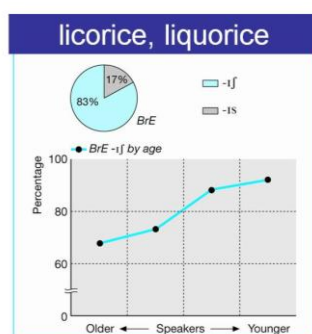
The word 'diphthong' is an old favourite: is it pronounced /'dɪpθɒŋ/ or /'dɪfθɒŋ/? Students of phonetics are certainly required to use the latter, because it is a technical term and we expect people to pronounce it correctly, which means with an /f/ sound. But the general public clearly prefers /p/. And the same applies to the two prevalent pronunciations for 'ophthalmic', namely /ɒf'θælmɪk/ and /ɒp'θælmɪk/.



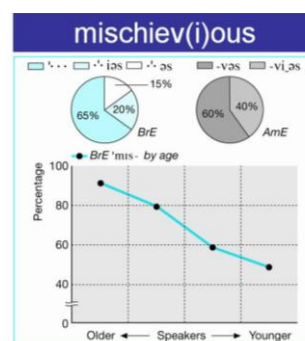
The next example is an odd one, because you do not often see the word written down, so there is little possibility of the spelling affecting the pronunciation: it is the name of the letter <H> itself. Traditionally this was pronounced /ɛrtʃ/, but, as you may have noticed, it is increasingly now pronounced /hɜrtʃ/. This is still a minority preference but among our youngest age group – 25 and under – one quarter of the people asked preferred /hɜrtʃ/. And I am sure that will increase in future.



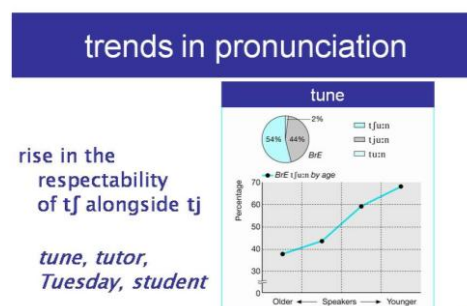
The word 'kilometre' is a continuing and common difference between Britain and America, but the patterns are different. Both groups prefer the stress on the second syllable but the minority that prefers the stress on the first syllable is markedly bigger in British than in American English.



Another intriguing word is 'liquorice', as one of the pronunciations goes against the spelling. The spelling suggests that it has an /s/ sound at the end, but there is a rival pronunciation with /ʃ/ at the end - /'lɪkərɪʃ/. You will see from the graphs above that there is a majority for this in all the age groups, but the younger people were the more likely they were to prefer it; in fact it reaches 95% among the youngest age group. This is indeed interesting because we know from the history of the spelling of this word that both pronunciations have been around for centuries. So it must be that what was previously a disapproved-of pronunciation has gradually become accepted: and this explains the age slope in the graph, as more and more young people decide it is /'lɪkərɪʃ/.



The changes in the pronunciation of the word 'mischievous' are too complex to cover in detail here, but suffice it to say that there are at least three ways of saying it: with stress on the first syllable, stress on the second syllable, and even a variant with an extra syllable near the end so that it rhymes with 'devious'. However the graph shows that /'mɪstʃɪvəs/ is becoming less and less popular: if I were younger I would probably change my preferred pronunciation to either /mɪs'tʃi:vəs/ or /mɪs'tʃi:viəs/ - in the latter case I would probably want the spelling to have an extra letter too.



Are there any general trends? Yes, but they are more difficult to collect data on as you cannot ask people directly about matters relating to do with how they articulate sounds in general. The analysis of some changes requires specialist understanding of phonetics. For example there is no point in asking a person how much aspiration (a puff of breath after the consonant) they give in a particular word, even if I give them both pronunciations to choose between. The word 'nostalgic' is the kind of case where both pronunciations might apply to the /t/. People do not have the knowledge to answer that kind of question, even about their own pronunciation. Similarly it is

dangerous to ask people about their use of glottal stops: for example whether they use a glottal stop in <department>: most people would reply ‘no’ even if they actually normally pronounced it with a glottal stop in the middle, not an alveolar one. The way people actually pronounce a word is not necessarily what they *think* they do, they may well not have the knowledge to hear the difference.

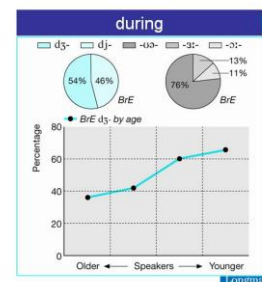
But you *can* ask them about things that they will be aware of. One of the things that almost all people are aware of is the change in the pronunciation of the words with the letter combination <tu> or <tew>: the pronunciation of <tune> is increasingly changing from /tju:n/ to /tʃu:n/, <tutor> is changing from /tju:tə/ to /tʃu:tə/, /tju:zdi/ to /tʃu:zdeɪ/ (first syllable as in ‘choose’), and /stju:dnt/ to /stʃu:dnt/, or indeed nowadays /ʃtʃu:dnt/.

So I was able to ask people about one or two words in this position, what they think of this change, whether they prefer the pronunciation with /tʃ/. They do in fact say that they prefer /tʃ/ to /tj/. There is always going to be a majority in favour of what they think is correct, but the question is not actually about that, it is about which they prefer, which is not quite the same question. It is also misleading to ask people which of the two pronunciations they use themselves, for the reasons mentioned earlier. However we can probably deduce from the fact that 70% state a preference for /tʃ/ that over 90% normally *say* it this way. As you can see in the graph the /tʃ/ pronunciation is becoming more acceptable.

trends in pronunciation

...and of
dʒ alongside dj

*duty, reduce,
endure, during*

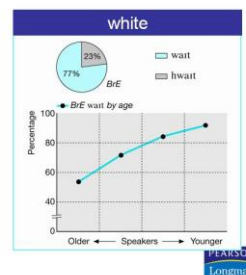


Similarly words such as ‘duty, reduce, endure, during’ are increasingly using the pronunciation /dʒ/ instead of /dj/.

trends in pronunciation

• decline in the use of
hw in AmE,
following BrE

*white, why, which,
somewhere*



Perhaps less often noticed by most people are the words with the letter combination <wh>, where the aspirated /hw/ pronunciation is becoming less and less common as an ideal of what we ought to say. In Britain people have not been pronouncing the /h/ in these words for a century or so. They no longer say /hwaɪt/, but the point is that they certainly used to feel that they *ought* to pronounce it that way. Even 50 years ago they were probably taught they ought to say /hw-/ , but now they do not even think that they ought to do it, at least in England. If you are Scottish things are different, and the presence of Scottish respondents in the sample probably increase the number stating a preference for this pronunciation. The Americans are following us in this general trend, but some decades behind. Because of this variation in pronunciation I feel that this area is not at present able to adopt a reformed spelling.

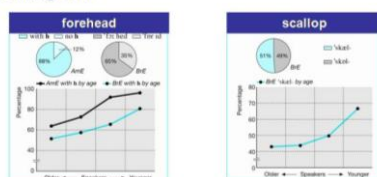


Another common word where there is a difference in pronunciation between British, Scottish and American English is the possessive pronoun 'yours': does it correspond to a reformed spelling <yoorz> or to <yorz>? It is important to be aware that the Scots would say /yoorz/, but the rest of Britain predominantly prefer /yorz/: three-quarters of the respondents voted for the latter. Another implication of this example for a spelling reform is that a simple change, eg to <yaws>, will neglect or annoy the speakers of English who still pronounce the /r/ that is in the traditional spelling, including the Americans.

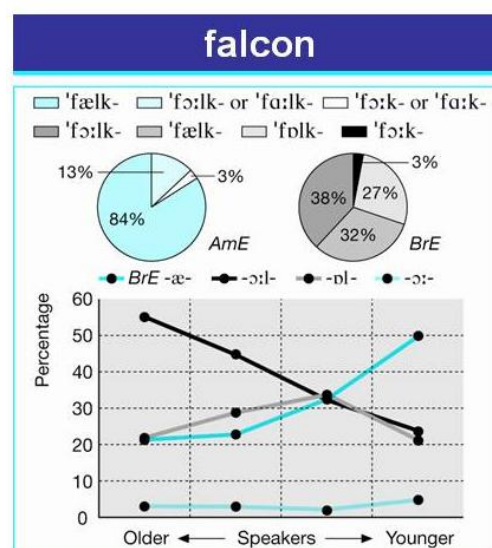
So whatever changed spelling was adopted would be a compromise solution for the majority form. Interestingly in text-spelling, younger users who have widely adopted the letter <u> for the pronoun 'you' have extended this by adding a <r> to give the possessive <ur>, though this does not necessarily mean that they actually pronounce it with an /r/. Whichever of these spellings we might choose as a reformed spelling, there would still be an encoding problem for some people because many do not hear or distinguish between these various possibilities.

spelling pronunciation

In some words
a pronunciation corresponding to the spelling
is taking over

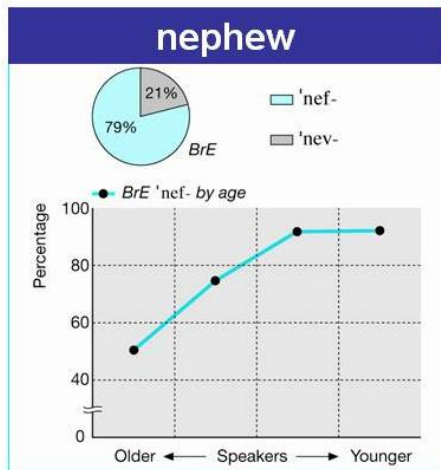


We spoke earlier about decoding pronunciation from spelling. It is important to appreciate that this can sometimes lead to what are termed 'spelling pronunciations', where an incorrect pronunciation is deduced from an irregular spelling. Because of this, spelling can itself be an important cause of pronunciation changes well. A well-known example is shown in the children's poem - *'There was a little girl and she had a little curl right in the middle of her forehead; when she was good she was very, very good, but when she was bad she was horrid'*, showing that at the time of its composition the word <forehead> was pronounced to rhyme with <horrid>: the rhyme does not work if you say 'fore-head'¹². But the graph above shows that the pronunciation by young Americans is now almost 100% 'fore-head', with the young British speakers at around 80%. But this is a case of what is now deemed the 'correct' pronunciation being derived from the spelling, and the previous normal pronunciation /forrid/ being regarded as lax. The other graph shows how the word spelled <scallop> is fast losing its traditional pronunciation as /'skʌləp/ in favour of the spelling-pronunciation /'skæləp/.



The pronunciation of the word spelt <falcon> is made more complex by the behaviour of vowels before the varying

articulations of the letter <l>, and therefore presents us with no fewer than five current pronunciations, as shown in the simplified chart above. The older pronunciation as /'fɔ:kən/ (with the first syllable rhyming with <hawk>) first acquired the /l/ suggested by the spelling to give /'fɔ:lkən/; then the main vowel changed to /æ/ giving the most common current pronunciation as /'fælkən/.



This graph for the word <nephew> shows how the pronunciation with /v/, still used by older British speakers, has now more commonly given way to the pronunciation with /f/ suggested by the spelling <ph>.

if...

If a century ago we had modernized the spelling to (say) *forrid* and *faulcon* and retained the earlier spellings *scollop*, *neveu* / *neveue* (< French *neveu*)

then these changes in pronunciation might not have happened.

What is remarkable about this is that if we had modernised our spelling a century ago, when the Spelling Society was first founded, we would in all likelihood have spelt the words according to the pronunciations prevalent then, and spelt the above words as <scollop> and <neveu>; both pronunciations were actually around in the 19th century, and the word <nephew> actually came to us from the French word 'neveu', with no sign of a <ph>. If that had

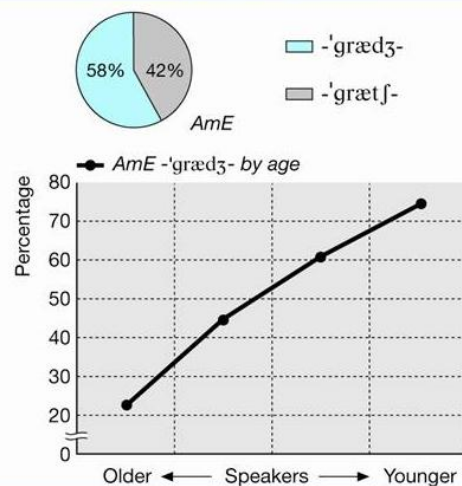
happened the spelling would not have influenced the pronunciation, and the changes which gave us the current values might not have happened.

**However,
some changes go
against the spelling**

Preference for the dʒ form, though unsupported by the spelling, is rising sharply in AmE. It remains unknown in BrE.

However we do have to remind ourselves, and we have seen some examples already, that some pronunciation changes do not follow the spelling, and indeed they go *against* the spelling. This proves that spelling is not everything: the language has a life of its own, and it has changed because it is nothing to do with writing.

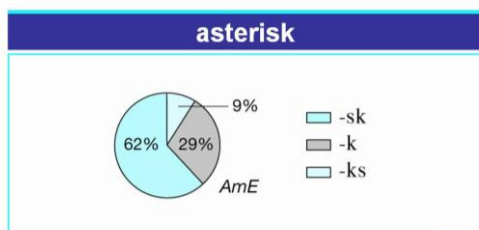
congratulate



The example of the word <congratulate> shown above is an American innovation, which is entirely unheard of in Britain: the middle consonant spelt <t> is pronounced /tʃ/ in British English but Americans very

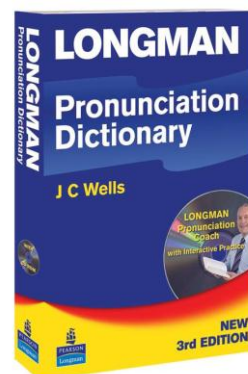
often pronounce it /dʒ/, as if spelt <congrajulate>. But this is not a general rule for words of this type: nobody would dream of saying <perpetual> or <situation> with the voiced sound, it is just a one-off for this word and its derivatives: <congratulate> and <congratulations>. Nor is it the American ‘t-voicing’ mentioned earlier, where a /t/ between vowel sounds gets voiced (eg <shutter>, <city>). Nobody has an explanation for it but it is a documented fact.

Vaux survey (AmE)



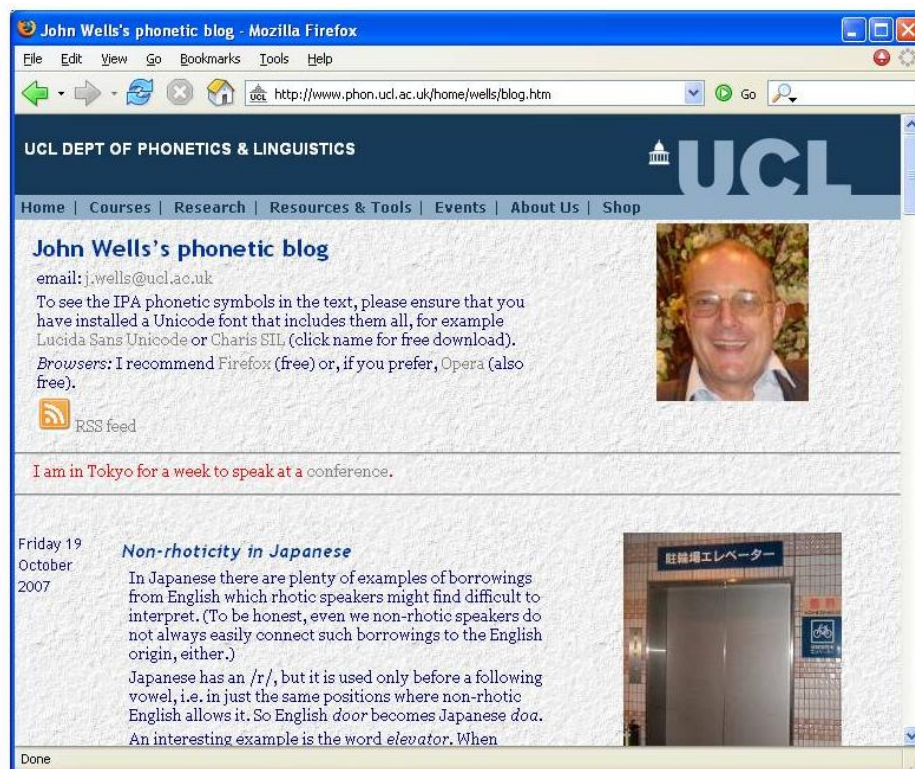
The above chart shows another American example, the name for the little star symbol <*>. It is mostly called an ‘asterisk’, nobody calls it anything else much among British people¹³, but the Americans voted in

rather large numbers for either /'æstərɪks/ or indeed just /'æstərɪk/, as if the –s form was a plural.



All the changes, whether felt by some to be ‘correct’ or not, are the kind of thing I try to document in the Longman Pronunciation Dictionary shown above. If you go to my website

<http://www.phon.ucl.ac.uk/home/wells> you can find lots of information, not just about this dictionary but about all sorts of other things too.



I also run a ‘blog’ from this site, to which you will find a link on the homepage mentioned above, and above you will see an example page. It is not quite daily, but has something new of phonetic interest every weekday.

¹ Cambridge University Press, 2004.

² Dent, 1917, (1930), 1937, 1947, 1949 etc.

³ Oxford University Press, 2003.

⁴ Longman, 1990, 2000.

⁵ Oxford University Press, 2006.

⁶ Duden, 1962 etc.

⁷ Duculot, 1987.

⁸ Radiotelevisione Italiana (RAI), 1969 etc.

⁹ The slide shows an extra syllable in <ai pod pæk>, please ignore the <pæk> [John Wells].

¹⁰ The character <ə> represents the neutral unstressed vowel, as, for example in the first syllable of <above>, or the unstressed <the>.

¹¹ ‘LPD3’: Longman Pronunciation Dictionary, 3rd edition.

¹² This is not a solely British pronunciation: the above rhyme was actually composed by the American poet Henry Wadsworth Longfellow: <http://rpo.library.utoronto.ca/poem/1345.html>.

¹³ Editor’s note: where in British English it is referred to as an ‘asteriks’ it may well be influenced by the cartoon character ‘Asterix’: <http://gb.asterix.com>.

Mr Christopher Jolly

Remedial teaching of reading: a trial with reformed spellings

Remedial teaching of reading

A trial with reformed spellings

The theme of this conference is 'The Costs of English Spelling', and my presentation will all be about costs. In particular about how 'costs' can be used as a measure to help identify how one can provide commercial materials which use such spelling reforms as can be incorporated.

Cost of illiteracy

Lower tax take from illiterate adult:

£ 2,000 per annum

I am going to describe a trial that has already happened, but first I will describe a measure of 'cost' that we can use. From the government's point of view the price that they can put on illiteracy is that an illiterate adult will pay £2000 less in taxes to the government each year. That is principally national insurance and income tax: it is the difference between an adult who is one of the 20% or so who are functionally illiterate and those whose careers are not hampered in this way.

Remedial teaching alternatives

Reading Recovery £ 2,000 pa disputed results

Teaching Assistants £ 200 pa limited results

Let us contrast that with the cost of providing literacy to this group of people. The government's current approach is 'Reading Recovery'¹, for which the cost is again about £2000 per year per student. This scheme is an intensive one-to-one scheme, it uses teachers who have been given time away from their other activities

to be specially trained in the new scheme. As you will see from the image above I have added that the results have been disputed, by which I am trying to be fair rather than partisan: the results from 'reading recovery' are difficult to analyse because the principal research has been done by people who are themselves part of the 'reading recovery' movement. They have an extreme sensitivity about the data, but my own interpretation of the results is that 'reading recovery' is much more effective with children who have mild difficulties, but less effective with those who have more severe problems.

One of the features of 'reading recovery' is that a surprisingly high proportion of those who start on the scheme do not complete it; as these children are actually excluded from published statistics it is difficult to achieve an objective assessment of the costs and achievements. But using such figures as we have, from the government's point of view the level of payment to achieve change with 'reading recovery' is very similar to the estimated loss in tax revenue per person, but it does have this question-mark over it because of the way the statistics are compiled.

In tracking the government policy on this, one of the things that you notice is how 'reading recovery' goes in and out of fashion and yet the numbers of children who actually get that level of intense remediation is remarkably low in comparison with the total demand.

The alternative to this kind of level of intense remediation is the use of the SENCOs, the Special Education Needs Coordinators. The normal approach is to

have one SENCO per primary school. They do a lot of one-to-one remediation with individual children, but the effectiveness is very dependent on the ability of the teacher, and there are a variety of programmes that they use.

At the other end of the spectrum of classroom support lies the use of teaching assistants. When these assistants are used the remediation typically takes place not on a one-to-one basis in a separate room, but at a table within the classroom with a group of children who follow a particular programme set by the teacher, usually published material. The results tend to be more limited but nonetheless valid. A number of programmes are in use, for example 'Toe by Toe'² and a programme by Jonathan Solity³. Speaking as a publisher one of the things I would observe is that the programmes in use all require quite an intensive skill base by the teaching assistant in order to deliver the results. So we are in a situation here where it would be good to use teaching assistants but the available materials make it difficult for them to do it effectively.

Reformed spelling alternative

Aim: High remedial achievement - essential!

Teaching: By Teaching Assistants - lower cost

Mechanism: Highly regular text to teach reading

Now let us turn to the questions which I faced when designing reading programmes using reformed spellings which also provide something to meet the needs for remedial teaching of reading. The emphasis on remedial teaching may appear surprising but there is a much greater willingness to accept unorthodox approaches to help children who are falling behind in their literacy than there is for mainstream classes. Parents are very willing, and so are teachers. SENCOs typically do not have a problem with the reading debate, they would like to see systematic synthetic phonics used.

I therefore found myself trying to identify what I could do to provide support for these teachers and to use remedial spellings, with the overarching aim being higher remedial achievement at the top end of the level of results being achieved at the moment with such children. The second aim relates to the cost element that underpins this conference: I wanted to produce something used principally by teaching assistants, under the supervision of the classroom teacher within the traditional classroom setting, and with skills for the teaching assistants compatible with the training level and the experience level that they can bring to the classroom.

The mechanism I chose for this was to use reformed spelling to provide highly regular texts, by which I mean *phonically* regular texts: texts in which the child can readily see and identify how the word is formed out of the letters they see on the page.

The initial teaching alphabet

traditionally wun ov the first tasks ov the infant scool wox too teeth children too reed. it is still, kwiet rietly, a major pre-occupæʃən, sins reedɪŋ is a kee too muç ov the lernɪŋ that will cum later.

- Very different 'look'
- Whole class (not remedial)
- Extended transfer to traditional spelling

I want to turn first to the 'Initial Teaching Alphabet' (ITA). You will be familiar with the fact that this was a scheme that started in 1958 and continued into the 1970s; indeed a few schools were using it even into the 1990s. At its peak it was used by 10% of all primary schools in the UK and was widely used round the world. What are the key features of the ITA, and what can we learn from it?

Well the first thing is that the ITA has a very different look from traditional orthography. That is a problem for my approach because we want to use teaching assistants and keep the cost-base down for the remediation. It is very difficult to get the cost-base down if you then have to use highly skilled teachers and require a high level of specialist training.

traditionally wun ov the first tasks ov the infant scōol wox tw
 tēch children tw reed. it is still, kwiet rietly, a mæjor pre-
 occuepæʃon, sins reediŋ is a kee tw muh ov the lerniŋ that will
 cum læter.

Let us give some examples from the text above. In the first word, ‘traditionally’, you see the <th> which is a joined digraph with a long <s>⁴. On the third line you can see <muθ> which has a combined <c> <h> character for the /ch/ sound, and the word ‘learning’ with a <ŋ> character for /ng/, like a combined <n> and <g>.

These can actually be barriers. One of the experiences that we have had from the publishing that we have done is that children do not have any difficulty recognising a digraph as a single sound. This means that where we provide them with a sound represented by two separate letters, eg <ch>, <sh>, <ai>, not joined into a special form as in the ITA examples above, they readily recognise that as representing a single sound and have no problems with it. This type of change is not, therefore, something that I felt I could use within the model which I was trying to adopt.

But curiously there are some things in ITA which do represent what I was trying to use. Consider the second word in the top line, <woθ>, in which the final <θ> is actually backwards, and looks rather like an <s>. From a child’s point of view it is a different character but an adult would probably scan the line and read it merely as an oddly shaped <z>. This tells us something interesting about the ‘look’ of ITA.

Teaching ITA was a ‘whole class’ operation. It was a programme where the class started by learning the ITA, and did it in isolation from texts in traditional orthography; this was followed by a period of transition to non-ITA texts. Typically it would be nine months of ITA and then nine months of transition, though some children made the transition faster than others. It had an inflexibility about it which affected the

results. Nonetheless the children did achieve higher results in literacy. The downfall of ITA was simply the difficulties that it had in terms of use, because it required such immersion and had this relative inflexibility; all of which led to an extended transfer to traditional spelling.

One interesting point about ITA is that it has no separate character for the ‘schwa’⁵. For example in the middle of the third line of the above text there is the letter <a>, in the phrase ‘reading is a key’, still being used for the unstressed sound <ə>. Similarly the word ‘the’ in the top line uses the normal letter <e>. In both words the sound is an unstressed *schwa* but nothing has been done to represent it as such. Without a separate character it is difficult to be phonically regular, given the fact that the schwa is such a common sound in English, probably the *most* common sound, as we compromise the ability of the child to identify the sound correctly from the spelling.

The new reformed spelling

Designed to be:

- Used alongside traditional spelling (so 2 texts)
- Phonically regular
- Very similar to traditional spelling in its ‘look’

One of the main aims for what I am trying to use for remedial spelling instruction is to design something which can be used alongside traditional spelling. This means that the page of text would have the text twice: once in traditional orthography and once in the reformed spelling. This allows it to have a flexibility for children: they can choose which one to use. It also means that they do not have a transition period at the end. The second objective, as mentioned above, is to achieve phonic regularity so

that the texts provide an exact transcription of the sounds for the child. The third aim is that it should be very similar in appearance to traditional spelling. This similarity is not actually for the child, it is for the adults – the parents and teachers, so that for them it is not frightening and does not require a lot of training or immersion; it is something they feel they can readily use. This is a challenge: how can you provide something that on the one hand looks very similar but nonetheless is phonically regular?

Reformed spelling design

Superfluous letters in feint
friend, lamb, have

New letters similar to traditional spelling
e: leaf, breed, believe
e: met, bread, when

But tricky words 'corrected'
sed, wos, uther

Let me show you what we have been doing. We have broken it down into three different actions. The first is that we have put all the superfluous letters in a faint font. They have not been omitted altogether as that would change the appearance too much, they have been retained so that from an adult's point of view it has got much the same look. However from the child's point of view it has quite a different effect: in the examples

friend, lamb, have

the <i> in <friend>, the in <lamb>, the <e> in <have> are all faint. This is a quite different approach from ITA: we have not tried to remove things that are superfluous, so that we keep the appearance from the reading point of view.

The next thing that we have done is introduce a number of new letters which look very similar to their equivalents in traditional spelling.

e: leaf, breed, believe
e: met, bread, when


In the examples shown above we have introduced what I describe as a 'Greek e', used for the sound /ee/ as in <leaf>, with the ordinary

letter <e> retained for the short /e/ sound. In this way when we combine this change with the use of faint characters the words that were irregular suddenly become very straightforward. In the word now spelled <leaf>, for example, you can tell from the <ε> that the sound of the vowel in there is /ee/ and the faint font shows that the <a> is irrelevant; but it still starts with <l> and ends with <f> so the 'look' is the same. From an adult's point of view the three words shown above, <leaf>, <breed>, <believe>, look just as they did before because the adult reader treats <e> and <ε> as mere variants of the same letter, so the spelling is 'the same' for them. From the child's point of view however those words suddenly become regular: for example <believe> is /b/-/e/-/l/-/ee/-/v/. And conversely when it is just a straight <e> saying short /e/, we get <bread>, <when> which are now really straightforward.

Finally, we have had to correct those words for which we cannot create regularity. The so-called 'tricky' words are corrected but we have retained the same number of letters where we can.

sed, wos, uther

For example in these three words you can see that we use the backwards <z> in <woS> that I mentioned earlier, and in the word <uther> we have a letter <ε> which has got an extra stroke as the symbol for the schwa; and it is also the symbol we use for the stressed /er/ sound that John Wells mentioned, for example in a word like <her>.



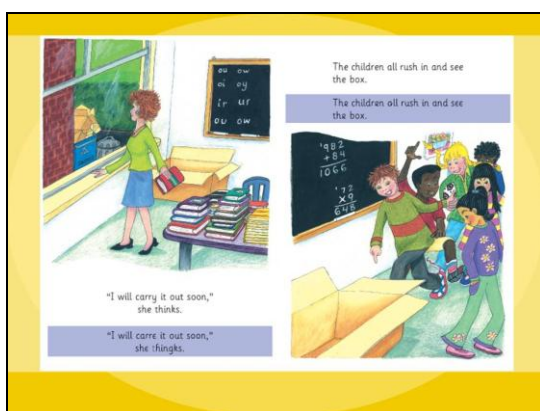
• Children try normal spelling first

• Reformed spelling tried if stuck

Miss Beech unpacks some books from a big box. She stores the box in a corner.

Miss Beech unpacks some books from a big box. She stores the box in a corner.

When we apply the above changes we would have a story book that would look like the above examples. There are two texts accompanying each picture, one in traditional spelling given first on a white background, and the same text beneath it in reformed spelling on a purple-blue background. However the point size for the font is the same so that both texts look about the same size. This means that when children transfer from letters in the top text to letters in the bottom text they can match them more easily, they become accessible. The intention is that children would use the 'normal' spelling first, and if they got stuck on a word they would refer down to the text below and be able to work out what actually that word said, with the new transcription of the word in its true sounds. In this way they can actually then read it. It gave them a choice. Instead of being politely told to work out the words by looking at the picture, or to guess what it means in context of the rest of the sentence, they can go to the word in the alternative spelling and work it out for themselves.



From a publishing point of view we use existing stories, with no fresh illustrations, and turn them into something that can be used in the new market. You can also see some of the other symbols that we have introduced. In **soon** you can see the symbols for /oo/: an <o> with an extra curve at the bottom. In the word **oil** you can see the symbol for /or/: an ordinary <a> but with an ascender, a bit like a <q> without a long tail. These may seem quite subtle changes but we find that when a child is trying to reach for the sounds and to

be able to read this, these are changes which we feel they are able to use without the problems experienced by experienced adult readers.

Trials to date			
Phase 1	2006/7	4 schools	results available
Phase 2	2007/8	6 schools	in progress

In the trials so far we have had two phases. The first phase was in four schools last year, finishing in summer 2007, for which we have already got the results. The second phase is in progress now (June 2008) in a further six schools, for which we will be getting the feedback later this month. The schools were spread across the country, the four schools in the first phase ranged from Surry to North Yorkshire, and the six schools in the latest phase range from Leicester to South Wales. We made some changes in phase 2, learning from the experience of phase 1 to try and improve what we were doing.

Teaching in Phase 1 trial	
• 25 children	
• Number of lessons: 25-80, averaging 30 minutes	
• Reading gain of 6 months over 4 months period	
• Particularly helped children with poorest reading	

Across the four schools in phase 1 25 children took part in the trials, and in each case the trials were in normal classrooms with teaching assistants where the children worked in a group on their own. The number of lessons over the period varied considerably between the different schools, and averaged about 30 minutes. The best metric of how well the children have done in the trials is to measure the 'reading gain': from the use of standardised reading tests we can tell the 'reading age' of a child before and after the trials. There are a number of these tests, so it is naturally important that we use the same one at the

beginning and the end to ensure compatibility of results.

We found that over the four months on average the children had a 'reading gain' of six months, that is their reading age went up by six months. This means that these were children who were struggling with reading, who have a history of under-achieving, but who are now achieving at a rate 50% faster than the mere passage of time; for example for every 1 month on the programme they gained 1½ months in reading age. This ratio of 50% improvement compares well with other programmes; it is at the level of good upper quartiles⁶. It would be very unusual for a programme to achieve double gain, eg to achieve 6 months gain over 3 months of intervention. Conversely if any programme only causes a marginal gain over the period of time, for example 5 months improvement over 4 months on the programme, that would be rather incidental and not really very worthwhile as a remedial programme.

However our figures are of necessity what would be described as strictly 'not statistically significant', in other words we do not have sufficient numbers to be able to be categorical about the implications of the outcomes. Nonetheless they are an extremely useful indicator of whether we are on the right lines, and it may change with the second phase which we feel is likely to improve the figures, both in terms of the material that we have done, and also in terms of the way we structured the materials in the classes. What was particularly encouraging was that we seemed to achieve the highest results for gain in reading ability from the children who had had the poorest results. Within the 25 children in phase one some schools included a few children who were not that very poor readers, not really what one would describe as 'remedial', their level of reading ability was not far from their actual age; not surprisingly we found that they had relatively modest improvements in reading ability from the programme. However for the ones who really did have some difficulties we actually found a very distinct improvement. So against the yardstick of

trying to produce something which might have a particularly strong level of effectiveness that was very encouraging.

Key findings

- New letters were easy for children
- Children eager to use and gained confidence
- Children only used reformed spelling when stuck
- Children did not attempt to write the new letters

What are the key findings from the actual research?. The first one is that these new letters, of which there are about 10, were actually very easy for the children to learn. Bear in mind that they were given 10 new 'shapes': they are normally used to the 26 shapes of the alphabet, plus the numbers and a few symbols. Well we were giving them 10 more. They were quick on the uptake, despite the fact that these were children who needed remedial help with reading problems. They were so quick with this new approach that when the teaching assistant was trying to look at the back of the book to remember what the sound was the children were already telling them. They loved that, they loved being quick off the mark and beating the teacher.

We found that the children were eager to use it. They gained confidence from learning the symbols by using them, from finding them in the books and being able to use them easily. We also found that the pattern of usage turned out to be just what we had expected and intended: the children *did* start by using the normal texts on the white background, and *did* go down to the reformed spelling only when they were stuck; they did not just work from the reformed spelling. Finally, and this was something that worried a number of the adults about the trial, it worried the teachers, it worried the parents, and indeed it worried the developers too: that the children might suddenly start using these symbols themselves. In fact the children showed no attempt to write with the letters, they did not form part of their written work at all. They *were* writing, but they were

writing this with normal symbols, with normal letters only.

I have picked out some of the comments from the children involved, so that you can get a feeling of how it felt like for them.

- *'The little sounds help you when you get stuck. If I look down here I can work it out myself'.*
- *'I looked at the word and it was easy on this line. I don't have to use it but I like it'.*

So an element of choice coming in here.

- *'I don't have to use the purple bits but when I do it is quite easy. When I don't know I can help myself with the purple parts.'*

Finally one I particularly like:

- *'The purple parts are OK. I didn't use them at all on that page'.*

So there's an element of pride coming out there, that they are achieving.

I am a very strong believer in being able to delegate power, in passing responsibility down, as a shared morality throughout education. And in this particular instance I feel that one of the mechanisms in the process is giving options to children, giving them some power, giving them the ability to make a choice if they do get stuck. They can do something, which in turn enables *them* to get out of the situation; they are not just dependent on adults around to help them along. And that does seem to be what is happening here, they feel that they can do something. The first comment quoted above, *'If I look down here I can work it out myself'*, is very satisfying to see.

Next stages

- Latest trial to be evaluated
- Other remedial publishers invited to participate
- Working title: Jolly Phonics Extra
- Full academic evaluation after launch

Where have we got to, and where are we looking at going next? I had better start by saying that, as you can imagine, there are quite a number of adults around me,

nobody more so than my two authors, who thought I was frankly off the wall on this project. Neither of them thought this had got much mileage, but they were happy to let me set it up. However I have now convinced them to visit the schools, and see the teachers. They expected the teachers to reject the project, but the anticipated excuse 'actually we didn't like it' simply has not come. Indeed all four schools in phase 1 of the project asked if they could retain the materials for further use. I do not know what further use they have made of them but in itself it was an interesting reaction. Similarly with the parents: at none of our meetings with them did we get the predictable response 'I am not really happy with this'.

Where are we going from here? Well the first thing to do is get the evaluation of the latest trial. We hope to include not only the anecdotal responses from the teachers as to how it has gone from their point of view, but also some diaries of comments made over the years by the children or by their parents. Finally the actual reading tests and scores, showing reading ages after the trials as well as before them, so that we have a statistical measure of how well the children have done. If that shows a positive response, it gives us a way forward.

I have also contacted other publishers, who publish within the special needs field, and who have got literacy material, books, stories, to invite them to participate. The benefit in having a range of published material is to have a range of what are called 'genres'; in other words to give a different look to the style, have a different subject matter and particularly a different age profile. The books that I publish are for children in their first two or three years at school, but other publishers, especially those with strength in special needs teaching, have material that goes to much later years, even into the teenage years.

We have given the overall project the working title of *'Jolly Phonics Extra'*. The word *'Extra'* is intended to be used as a generic term for this whole approach, and

one that could be used by other publishers by taking a range of their works and adding the term '*Extra*' to the end to refer to this adaptation.

Finally in terms of a fuller evaluation, we would seek to have a full academic evaluation. When it is in full use in schools it will be amenable to an academic evaluation, with controls and experimental classes. Of course this will be a nervous time for us but it will better as a result. It will have much more credibility: if we were to evaluate it before the launch it would seem that the trial was merely intended to

prove our expectations, so we need to have the objective independence provided by evaluation during and after the trials.

As you can imagine I have got quite reasonable hopes that we have produced something where we will be able to turn reformed spellings into something which actually delivers in terms of educational benefit. Materials which we can turn into something commercially viable; I believe this is a very stable and viable way of taking it forward, not just for myself as a publisher but for others too.

¹ <http://www.literacytrust.org.uk/database/readingrecovery.html>.

² Cowling K and Cowling H (1993), '*Toe by Toe: Highly structured multi-sensory reading manual for teachers and parents*', Toe by Toe, Shipley UK.

³ Solity J '*Early Reading Research*', http://www.clackcloseprimary.co.uk/_files/information_for_parents_107__leaflet_1.pdf.

⁴ The full ITA alphabet is available on the web site <http://www.omniglot.com/writing/ita.htm>.

⁵ 'schwa' – the term used by linguists and phoneticians for the sound which is heard when almost any vowel is unstressed, represented in the phonetic alphabet by <ə>, eg in <the>, <above>, <nation>, <medium>, etc. In Jolly Phonics it uses the character <ø> as explained later in the presentation.

⁶ 'upper quartile' = 'top 25%'.

Ms Raffaella Buonocore

Does being a Chinese speaker reduce the time of learning English spelling?

Note: a shortened version of this was read at the conference.

Native speakers may be aware of the many flaws which exist within the English spelling system, but I am sure that they are less aware of how many obstacles it creates for Chinese speakers in acquiring the language itself. The English spelling system not merely creates obstacles, but poses a grave problem for Chinese speakers who wish to use English in the hope of enriching their careers and contributing towards the development and expansion of their country.

For a Chinese speaker the 'Roman' alphabet itself is easy because it is used in their spelling system of Chinese characters called 'pinyin', albeit with a few changes in the use of some letters (eg <q> is pronounced similar to /ch/ and <x> similar to /sh/)¹. The phonetic sounds produced by most Chinese pinyin characters are similar to phonetic sounds produced in English, and may therefore help students in English spelling for regularly spelled words, but only to a certain extent. Chinese speakers are very clear about their own pinyin spelling system mainly because this spelling system is practical, reasonable and logical.

The difficulty of English spelling lies in the paucity of stable rules which students of English can rely on, the spelling and pronunciation of a word can only be grasped by simple trial and error. For instance there may be a spelling combination which can be pronounced in various ways, such as <ou> in the words <you>, <house>, <bought>, <rough>. Conversely differing spelling combinations can produce the same pronunciation, such as in the words <horse>, <door>, <thought>, <taught>. Vowel combinations are difficult to grasp precisely because of their instability in spelling as well as in pronunciation. Sometimes vowel characters are combined to produce a single sound,

whereas in other cases they may be divided by the sounds of the letters 'y' or 'w' known as 'glides', even though they are not written. For example, in the word 'friend', the vowel combination <ie> has one sound, whereas in the word <experience>, the vowel combination <ie> is divided by the unwritten sound of the letter <y>, and so (if the full phonetic realisation is desired) should be spelt as <experiyece>. Spelling combinations as well as their sounds can only be learnt by looking at the words they are used in, rather than in isolation.

The way native speakers of English learn how to spell at school is through repetitive reading and writing exercise. English speakers are fortunately able to grasp English spelling quicker than Chinese native speakers, not only because teachers use different methods in training students how to spell, but also because they live in an English speaking environment. The way Chinese speakers learn English spelling, on the other hand, is mainly through memorizing the words. During primary school Chinese students are not trained how to spell according to phonetics, but according to the letters they see in the word. So for example, <teacher> is spelt as 'T-E-A-C-H-E-R'. Chinese teachers teach the pronunciation of words only through vocally repeating the word as a whole.

Because phonetics is not stressed in the Chinese syllabus², students lack the necessary foundation for reading, writing and speaking, especially when they reach secondary school. During secondary school students memorize vocabulary through self-study and force themselves to learn the spelling just by looking at the words in isolation rather than in context. This is one of the main reasons why they do not know how to use words that they learn. Nor do they know the pronunciation of the words they learn because of the lack of one to one

correspondence between sounds and spelling combinations.

This drawback in Chinese education is one of the main reasons why Chinese students find English difficult. Because of the lack of relevant training, Chinese students find themselves lacking the necessary tools for learning the English language. Those who teach Chinese students find it even more difficult to teach them when they are in their teens, precisely because of the lack of phonetic training during childhood.

At present I am teaching students mostly aged 18-20 at the School of Continuing Education's 'Centre for Overseas Exchanges' at Qinghua University. The parents of these students are mostly in business and relatively prosperous. They send their children here to gain the skills needed for studying a degree in countries such as England, America and Australia. Their attitude towards studying English is not very positive, mainly because of the rigid methods teachers used throughout their education. In China, languages are taught as a scientific subject rather than as one of the arts. During their education teachers stress the need to acquire English for passing examinations in order to enter schools, colleges and universities, rather than as a tool of communication and potential employment³.

The rigid methods used to teach English mainly include memorizing vocabulary and grammatical rules, for they are only tested on reading, writing and listening during their examinations. The students do not have much speaking practice because they are not tested on their spoken English, which is made worse by the fact that most Chinese teachers have never been abroad and so are not very good models for spoken English. Since students have been trained to learn English in order to pass examinations, their passivity towards learning is particularly noticeable. As a result students tend to be uninterested and unconfident in using English. This negative attitude towards learning English has a major

impact on the development of their language skills and abilities.

This brings us back to the subject of English spelling. Spelling influences reading, writing and speaking. It influences reading because if they do not know how to pronounce a word students are unable to read texts out loud; it influences writing because, for example in dictation tests, what the students hear and what they write may be completely different; and it influences speaking because they do not know how to correctly pronounce words they have learnt from textbooks.

My present students are not very strong in these three areas (reading, writing, speaking) because they did not receive phonetic training. Confronted with students who have studied English for years but whose level of English is similar to that of a native English primary school student, teaching the language becomes extremely frustrating. I teach them English speaking, but I find that I cannot develop their speaking skills without teaching them the necessary basics. The time and effort used to teach them phonetics through dictation, added to teaching the pronunciation of the vocabulary used in topics of discussion, exceeds the amount of time they actually have for speaking practice.

The minority of hard-working students wish to improve their English skills within a short period of time because they hope to go abroad to take their degree after the summer. However, no matter how hard they work, the scars which past education has left behind seem incurable, and true progress only goes hand in hand with the environment one lives in. Hence, the sooner they go abroad the better chance they have of filling in the numerous gaps which were created throughout their learning experience in China.

English spelling is not only difficult because of the clashes between what is written and how it is pronounced, but also because English spelling varies from one country to another. Chinese schools have

always emphasized American-English in their syllabuses, and so students are more accustomed to American-English than British-English. This is the main reason why they become confused when their teacher uses British-English in class, rather than American-English. American-English and British-English not only vary in spelling, but also in pronunciation and intonation. In situations like this students are left to cope with the differences rather than fight against them. English is, after all, a global language, therefore the more one is accustomed to the differences the more one enriches one's own knowledge of the language.

In my personal opinion learning British-English actually aids students more in spelling than American-English does. American-English tends to slur some of the sounds of vowels and consonants, whereas British-English often distinguishes these sounds quite clearly. For example American-English merges the vowels /a/ and /e/ so that words such as 'man' and 'men' can sound the same, and similarly the vowels /o/ and /u/ in words such as /gone/ and /gun/. This confusion in sounds that American-English creates adds to the reasons why many students cannot spell correctly.

My present students are required to have IELTS (International English Language Testing System) qualifications for studying a degree abroad, and IELTS is based on neutral English rather than American-English, therefore studying only American-English throughout one's education undoubtedly has a negative impact on gaining necessary qualifications.

My experience teaching English spelling to primary school students has been much more successful, mainly because their minds are not so set in fixed methods. I taught a group of children aged 8-12 at home on weekends for approximately six hours a week. My students came from poor family backgrounds. Unfortunately because the area in which I was teaching only had about 3 to 4 foreigners in total many parents

were unaware of the importance of having a native English-speaker as their teacher. I had a living room which could seat up to 18 students, and after distributing over a thousand leaflets only 9 students attended, despite the very low fees for this group. After the first month of classes the number of students started to reduce until there were only 2 students left who had completed the course, even though it only lasted three months.

The techniques I used were very effective for they grasped how to read basic words within only a month. Firstly, I taught them the alphabet according to the pronunciation of the alphabet letter as well as its phonetic sound. I particularly emphasized the vowels, as vowels are the foundation for reading one syllable words, such as 'A-a-apple', 'E-e-egg', 'I-i-igloo', 'O-o-orange', 'U-u-umbrella'. I spent some time on <c> and <g> because they have two pronunciations, thus <c> for /s/ in <city> and for /k/ in <cat>, <g> for /j/ in <giraffe> and for /g/ in <good>; and I also spent time on the letter <q> because it is usually followed by <u> in English, thus 'q-k-kw-quake, queen, quite, quote'.

After teaching them the basic phonetics of individual alphabet letters, I then taught them letters which are followed by the letter <h>. Thus <ch>, which has two pronunciations: /ch/ in <cheese> and /k/ in <stomach>; <sh> for <shop>; <th> which has two sounds: an unvoiced one in <thanks> and a voiced one in <this>; <ph> in 'f-phone'; <gh> which has three stable rules: when it appears at the beginning of the word, such as in <ghost>, it is pronounced 'g-good', when it is in the middle of the word, such as in 'eight', it has no pronunciation, and when it is placed at the end of the word such as in 'enough', then it is pronounced as 'f-food'. Then finally <wh> which has two pronunciations: /w/ in <what, when, where, which, why> and /h/ in <who>.

After teaching them these, I introduced them to word search puzzles⁴, which are used as a stepping stone for reading as well

as writing. I used a word search generator which I found on the internet, and, step by step, introduced them to words which have specific spelling patterns. I started with three-letter words, whereby a specific vowel was the basis, so for example, in one letter-grid I introduced three-letter words with 'a-apple' as the basis, then another one with 'e-egg' as the basis and so on. When they were able to distinguish the five vowels, I moved them on to three-letter words ending in <w> and <y>, then four-letter and five-letter words which end in double consonants, such as <ck>, <ll>, <ss> and <zz>, then words ending in <e> using each vowel separately as the basis, such as in <male>, <mile>, <mole> and <mule>, then each vowel followed by the letter <r>, whereby <ar> words were placed in one word search, <er>, <ir> and <ur> in another word search, and <or> in another. And so on.

Teaching the Chinese students spelling using this method of isolating patterns is really effective, not only because it introduces students to such rules as do exist, but also because for each rule there exist irregularities in pronunciation which need to be recognized. So for those irregularities I placed an asterisk beside the word and trained the students to memorize the pronunciations through repetition practice. Word searches can strengthen reading, writing and speaking skills, for the students become accustomed to spelling patterns, irregular pronunciations and improve reading speed through much word scanning practice. Most importantly, word searches are a fun way of learning which therefore build confidence through interest.

I believe that in a developing country like China, the current Chinese pedagogic approach is one of the main influences on the time needed to learn English spelling. Chinese speakers find English spelling very difficult mainly because they lack the necessary training during childhood. In primary schools teachers teach the alphabet and very simple words and expressions through listening and speaking, but put little emphasis on phonetics, reading and writing,

which are areas that help develop their ability to spell.

Due to the lack of training they receive during their early years, when students reach secondary school they have severe difficulty recovering the necessary basics because the level of English taught undoubtedly increases in difficulty. During secondary school, students practice reading and writing, but still encounter problems with spelling. This is because even at this stage teachers continue to use methods which do not precisely train students to develop their spelling skills. In other words, teachers still insist that students memorize vocabulary to improve their English, and this method is not effective since students analyze the spelling of words in isolation, which does not help them understand how to use the words in context. Furthermore, the students do not know how to pronounce the words that they memorize because they have to do so through self-study from written materials.

Because of the rigid teaching methods used to teach English in China, students do not obtain the necessary confidence they need to use the language. It is their lack of confidence which makes them adopt a passive and negative attitude towards learning English. If the students received good training, then they would not be as uninterested towards the language as they are today. Because of their lack of interest, they do not study well, and this affects their progress in English, for the slower the progress, the more difficult and tiresome learning English becomes. English spelling is merely a burden which cannot be shirked off, because it is the basis of all necessary English skills: reading, writing, speaking and listening.

Students lack training in English spelling precisely because English spelling is not emphasized in secondary schools. Students aged 12-16 take examinations which are approximately 50% multiple choice and 50% composition, whereas students aged 16-19 take examinations which are approximately 90% multiple choice and

10% composition. English is therefore always stressed as a scientific subject which is used as a tool for passing examinations rather than used as a tool of communication.

In my opinion, if phonetics became part of the syllabus in primary schools students would not find English spelling so difficult to learn in later years of their education. Phonetics can be taught using a variety of methods, including phonetic textbooks, dictation, flashcards, and word searches. Phonetic textbooks and dictation are rather rigid methods of teaching English phonetics but are necessary nonetheless, whereas flashcards and word searches are a fun way of learning phonetics, which therefore helps students build confidence through interest.

During secondary school students should receive further dictation practice, for training students how to write words that they hear helps them to become accustomed to regular as well as irregular spelling patterns. Students should also receive much more practice in reading aloud rather than merely reading quietly, because reading aloud helps students become accustomed to the pronunciation of words, and aids them in developing English thoughts⁵. Also related to reading is the training of syllables: being accustomed to syllables can help Chinese students grasp the spelling as well as the pronunciation of words. In addition students should have speaking classes, and speaking should also be included in examinations, only then will spelling gain the importance and attention it deserves, for the most effective way of learning English spelling is by putting it into written as well as spoken use.

If Chinese schools used teaching methods mentioned above, I believe that English spelling would not be such an obstacle as it is regarded today. Because of the lack of training in such areas students find English spelling uncompromising throughout their

entire education, and believe that they will never be able to fully grasp English spelling due to the fact that spelling is not emphasized as an important skill to gain in Chinese schools. Because English spelling is not emphasized as the key to gaining all necessary English skills, students continue to make slow progress in acquiring the language throughout many years of study, and continue to doubt that one day they may be able to actually make full use of English as their second language.

Chinese children learning English are exposed, often for the first time, to an alphabetic script, and the large number of irregular forms and lack of reliable rules in English spelling undermines their confidence. They can often become highly proficient speakers, or highly proficient writers, but seldom both. One might feel that the sometimes arbitrary relationship between the English written form (the spelling) and its spoken form might not cause a novel problem for Chinese speakers who, after all, have had to memorise each Chinese character they need; so they might be less confounded by the irregularities of English spelling than speakers of orthographically regular languages are when they learn English. But this seems not to be the case: in fact Chinese students accept the alphabetic principle readily and are therefore unwilling to treat English word spellings as arbitrary word-shapes equivalent to logograms⁶. They are comfortable learning individual Chinese characters, but can be confused by what appears to be an alphabetic orthography fails to behave regularly. Growing up with a logographic writing system appears not to give Chinese speakers any particular comfort or advantage when they first encounter the arbitrariness of English spelling: in fact it can be a disadvantage as they expect the alphabet to behave consistently or predictably, which it fails to do in English.

¹ These are approximate values as the sounds used in Chinese are not exact matches for English sounds <http://www.simple-chinese.com/learn-chinese/lesson-01/>.

² Students receive no phonetic training during primary school but may receive some training in their later years of education.

³ Because English is a global language, it is stressed as a tool of communication and potential employment. However, there are several vital factors for learning a foreign language in general, which include increasing one's native language ability, understanding of oneself and one's own culture, as well as sharpening cognitive and life skills.

⁴ A puzzle where a grid of apparently random letters actually embeds several words if tracked vertically or horizontally within the grid. A simple example is in <http://syndicate.yoogi.com/word-search/>. Such letter games are of course not possible in Chinese.

⁵ Hearing one's own voice when reading aloud can help create an English speaking world in the mind, whereby English thoughts are formed and established. This linguistic world can to some extent replace that of a concrete English speaking environment.

⁶ A logogram is a single character representing a whole word, much like the ampersand character '&' represents 'and', which is the basis of Chinese writing; this is distinct from 'pictograms' which use graphics to represent words and phrases, as in many road signs.

Prof. Anatoly Liberman

Between the Spellchecker and the Spelling Bee, or, The moral cost of teaching English spelling

English spelling presents such difficulties to learners because it resembles a site to be excavated; only, unlike what happens in archeology, the accretions from many epochs are strewn here all over the place. The historical principle, which is, by definition, at war with the strictly phonetic representation of sounds (phonemes), characterizes the orthography of many languages, but English goes in this respect to the extremes unheard of in Europe. Mr. Raymond E. Laurita, an American researcher, was publishing *Spelling Newsletter* for many years and brought out numerous books.¹ His point was that English spelling is rational, but he drew his examples from the vocabulary based on Latin and Greek. He showed how suffixes and prefixes cluster around certain roots and how the entire system makes sense. His premise is irrefutable: someone who understands the mechanisms of word formation in the two classical languages, has some familiarity with French and enjoys grammar (a subject that has been off bounds for decades because it does not provide enough ‘fun’) will not confuse *principle* and *principal*.

But even if we disregard the fact that among native speakers of English, to say nothing of foreigners, Latin has fallen into desuetude or never been part of the curriculum, while Classical Greek is all but forgotten, no reason exists why, in order to learn to write English (a living language), exposure to two dead ones is indispensable. Besides, thousands of fancifully spelled English words are of Germanic origin.

The spelling of the homophones *rite*, *right*, *write*, and *wright* (*Wright*, *playwright*), to give a typical example, goes back to Old and Middle English. At one time, *w-* was indeed sounded before *r*, even though no one pronounced *gh* in *right* ~ *wright* as in *foghorn* (*gh* designated a consonant that must have been close to what we hear in Scots *loch* and in the family name

McLaughlin). Modern English spelling is partly hieroglyphic, that is, numerous words have to be learned individually: *knob* begins with a *k*, while *nab* does not; both *less* and *unless* end in *ss*, but beware of *till* and *until*; there are *berry* and *gild*, as opposed to *bury* and *guild*; *chore* is fine; in contrast, *choir*, pronounced as *quire*, is a bad joke; place and proper names defy reason, pure or impure.

Although I am going to speak about the moral cost of teaching modern English spelling, I will touch briefly on the arguments by the opponents of spelling reform.

1) Phonetic spelling will not work for English because speakers of different dialects pronounce things differently. The argument is valid, though it concerns mainly vowels. Satisfactory phonetic spelling (a kind of transcription) is unattainable in English if all its varieties are taken into account, but everybody will gain if *knead* loses its *k-*, *address* becomes *adress* (or *adres*), and *phoney* changes its phoney appearance and emerges as *fony*. The crime rate on both sides of the Atlantic will not be affected by the spelling *jail* (as happened in America) for *gaol* and *indite* for *indict*. All English-speakers have put up with an incredibly bad orthography. Why not alter it, even if ever so gently?

2) Spelling reform will obscure the etymology of words. It is not immediately clear why modern spelling should reflect the past, but, even if we agree that it should, how much history needs salvaging? North Germanic tribes settled in Britain in the 5th century and Old English arose. It yielded to Middle English, then to Early Modern English. Over time both the pronunciation and the spelling of English have changed more than once. Where then is the starting point? *Heifer* was spelled as *heahfore*, *dwarf* as *dweorg*, *lord* as *hlaforð*, and so forth; on the other hand, *s* was added to

island by adherents of the etymological principle who believed that *island* is a 'corruption' of *insula*². It may be useful to preserve *k*- in *know* because we can hear it in *a(c)knowledge*, and *-b* in *thumb* on account of its kinship with *thimble*, but *knock* and *dumb* are too long.

3) Spelling reform will make familiar words unrecognizable, and all books will have to be reprinted. Every novelty passes through three stages: someone introduces it, the new form coexists for a while with the old one (assuming that it does not die at birth for want of recognition), and the upstart is either beaten back or stays. A look into the *Oxford English Dictionary* will show how many spelling variants English words had between even Shakespeare's time and the 19th century, to say nothing of the earlier periods. Most of us read only recent editions (reprints) of classics. *Nock*, *aknowledge*, and *til* for *knock*, *acknowledge*, and *till* do look odd (especially *nock*), but the next generation will take those forms for granted and wonder why their grandparents embellished such simple words with useless letters. We keep correcting *it's* 'its' (an extremely common mistake) and forget that such was the spelling of this possessive pronoun in the 18th century. People adapt to change much more readily than some defenders of the *status quo* think.

4) *Write*, *wright*, *rite*, and *right* make the meaning of each of them clear, and this is a fair price for learning four 'hieroglyphs' (they may also be called ideograms). However, they sound alike, and we manage to distinguish them when spoken! They do not get confused in speech, and the context will also disambiguate them on paper. Anyway, English has a great number of homographs like *bow* 'to bend' and *bow* 'part of a ship.' Some are also homophones, as above; others are not: cf. *bow* (as in *rainbow*), *minute* (wait a minute) and *minute* (in minute detail), *entrance* (for entering), and *entrance* 'to put a spell on.' Look-alikes are 'dangerous' only when they clash in a pun. Other than that,

homographs, homophones, and homonyms seldom get into one another's way.

All such arguments and counterarguments have been mulled over countless times³. The only reason spelling reform cannot get off the ground is the attitude of those who spent long hours learning how to spell and do not want to admit that those hours have been wasted. It is like giving up ingrained political convictions even when their catastrophic consequences can no longer be denied. Yet the experience of several European countries shows that such a reform is possible. Sometimes consensus has been reached without 'bloodshed.' This is what happened in Iceland about forty years ago (an instructive example, because Icelandic is the most conservative of all the Germanic languages) and in the Netherlands/Belgium, with regard to Dutch, before that.

Other reforms encounter resistance but are implemented in the end (so quite recently in Germany). In Russia, radical changes were decreed by the Bolsheviks. The project of the reform predated the revolution, so that new spelling was associated with the Bolsheviks accidentally. To the educated, Pushkin and Tolstoy printed without the redundant letters must have been an abomination, but in retrospect it is clear that the reform was fully justified; regrettably, it did not go far enough.

I am now turning to the announced subject of my talk and will speak about the moral cost of teaching English spelling from the perspective of an American professor. Most young people whom I know never learn to spell properly. Theirs is a defeatist attitude: 'I am a terrible speller.' Some mistakes are typically American (for example, *deep-seeded*, for *deep-seated*⁴), but the absolute majority are not. Learners do not see the rationale for distinguishing unstressed suffixes in Romance words (*-able* versus *-ible* and *-ant* versus *-ent*). Why *insupportable* but *incorruptible*, *vibrant* but *fervent*, and why should there be both *descendant* and *descendent* if *dependent* does not have a partner? The fatal mistake

of the whole-word method consisted of the premise that all words of English are hieroglyphs, while in reality only some of them are. Students' mistake is of the opposite nature: they are unwilling to resign themselves to the existence of 'hieroglyphs' in their language.

An expected complement to the defeatist attitude is the inferiority complex: 'I am a terrible speller because I am a dummy.' Correct spelling is still required from editors, teachers, and academics. Yet student newspapers are nearly as full of errors as student term papers, and not long ago Oxford University Press advertised the position of an associate editor who, it was specified, in addition to numerous other virtues, should be literate. That it should come to this! A teacher in a lower school once complained to me that she had great trouble remembering the difference between *four* and *forty*. I explained to her how this difference originated and agreed that the spelling of those numerals should have been made uniform long ago.

Modern spelling, as I have said, engendered a defeatist attitude, and for that reason has no friends among the young. This is unfortunate, for written language is not, as may seem, spoken language fixed on paper, a mere reflection of what is said. It has a life and laws of its own. Our civilization is unthinkable without good writing. Contempt of spelling is a blow to culture, but nature will have its way and fight what is obsolete and illogical. Since those in power show no interest in cooperating with nature, they cannot afford the luxury of being shocked or grieved by rebellions.

In what can be called contemporary history, the first unauthorized (humorous) steps to reform spelling are at least 150 years old. Around the middle of the 19th century, the United States went through 'the kraze for *k*.' The famous Americanism *OK* does not trace directly to the misspelled phrase *oll korrekt*, but *korrekt* (or *korrekt*) aligns itself well with *Kongress*, *Konstitution*, and other facetious forms used in the newspapers of that time. Ads, with their *lite beer* and *nite*

clubs, came later and occasionally had their way; for example, American dictionaries recognize *donut* as a legitimate variant of *doughnut*. The 'kraze for *k*' pointed to an important detail: English does not need the letter *c* any more than French and Italian need *k*. *Sinsere* and *klever* are perfectly OK. Even *sticks* (and, it may be mentioned in parentheses, *six*) will not mislead anyone if respelled as *stiks* and *siks*. It is downright ridiculous to have *skate* but *scathe*, *cat* but *kitten*, *beacon* but *token*.

Another revolution from below strikes me as less amusing. It is not to our credit that people have trouble remembering the difference between *their* and *there*, *you're* and *your*, *one* and *won*. *The Grimm's Tales* (meaning *Grimms*) appears on the cover of Athenaeum's popular collection. I am always surprised to see how consistent misspellings are. This phenomenon is partly due to the demise of linguistics-oriented subjects in our educational system. Graduate students in language departments are afraid of the most elementary courses in the history of English, German, etc. and would probably avoid them if they were not required (this requirement is becoming rare on American campuses). English majors at my university (which has an unusually strong group of philologists among its faculty) need one (!) language course in English to graduate. Grammar has not only become a bugaboo at school; it has been termed an elitist subject, and *elite* is smut. Yet people have to write and, unaware of the most elementary links in their language, produce *definatly* and *tendancy*; *definition* and *tendentious* do not give them the necessary clue. (Of course, French *tendance* has also made its way into English, but this legal term is little known and has no bearing on my story.)

Just as I think that *know* should retain its *k*-because of *acknowledge*, I find *definatly* and *tendancy* intolerable (because of *definition* and *tendentious*), but it is high time to agree that in Modern English *a* is the main letter for *schwa* (cf. *about*, *abroad*, *tuna*, and especially the indefinite article *a*) and introduce it wherever possible

(see what is said above about *incorruptible*, *dependent*, and the rest). We cling to unreformed spelling, but obstinacy is no match for the subculture of illiteracy, and we have to recognize the fact that in some cases it has good logic on its side.

Our orthography engendered another monster, namely the spelling bee. Alongside the millions of youngsters (who do not become more literate when they grow up) incapable of spelling *definitely*, *there*, and *your*, hundreds hope to win prizes and become media heroes by cramming useless, partly nonexistent words. In 2008 a finalist tripped at *bogatyrr*: she risked *bogateer* and dropped out. Now, *bogatyrr* ‘an epic hero’ is a borrowing from Russian (where it is stressed on the last syllable and has ‘soft,’ that is, palatalized *r*: *bogatyrr*, with *y* transliterating a peculiar Russian vowel; in English the result is something like *bogatear* or *bogatere*). An English-speaker can encounter it only in Russian folktales, which neither the hapless finalist, who lost \$30,000 and her star hour, nor, I suspect, the judges have ever read. *Bogatyrr* is a piece of exotic lore.

Ambitious parents hire tutors paid to coach teenagers before the baleful competition. Once the subtleties of *colonel/kernel* and *adviser/advisor* have been left behind, the turn for words from Latin and Greek comes round: *prestidigitation*, *dyspepsia*, *apodictic*, *asphodel*, *philistine*, *phthisis*, *chthonic*, and other mouthfuls. Nor are *fuchsia*, *fin-de-siècle*, *Schadenfreude*, and *perestroika* forgotten. These are some of the words featured at the 2008 finals: *Huguenot* (a most useful word, to be sure, to someone who has no knowledge of French history or the history of religious persecution), *guerdon* (familiar only to those who still read the poets of Byron’s age or the prose writers with the size of the vocabulary of George Meredith), *boulangère* ‘potatoes cooked with sliced onions in a casserole,’ *anticum* (an unnecessary name for the front of a building), *sporangiophore* ‘the axis that bears the spore case,’ *heliophobic* ‘shunning daylight’ *smalto* ‘colored glass’

(Italian), and the enigmatic *redoppe* (I could not find it anywhere, have no idea what it means and cannot guess its origin, and I know a bit more about such things than any contestant).

What a heinous crime against humanity! Instead of reading great books and learning foreign languages, classical and modern, children waste months learning the words they will forget on the next day and will never see again. If reformed spelling can do nothing more than undercutting spelling bees, it should gain the support of all those who care about the sanity of growing generations.

Spellcheckers revolutionized the process of writing, but like every technical improvement, they made us more dependent on machines. They disguise, rather than cure illiteracy. The difference between those who mastered the written form of English and those who freeze when a modern computer is not at hand, remains. Besides, even in order to become ‘a terrible speller,’ one has to go through school and fail to learn the rules. Needless to say, a spellchecker cannot correct *affect* or *you’re* when *effect* and *your* are expected. Paradoxically, in a way, it has contributed to slipshod writing. As far as I can judge, most people, under the illusion that the spellchecker will take care of all mistakes and inaccuracies, do not reread their emails. The result is disastrous.

A development that may partly owe its origin to our erratic spelling is the abolition of dictionary forms in texting. Acronyms are ubiquitous, from *UNO* to *OED*, and clipping has been going on in English for centuries: *doc*, *prof*, *lab*, *math*, down to *U of U* (‘the University of Utah’), but *U Haul* (the name of a moving company) could arise only in a language in which in a three letter word like *you* two-thirds are redundant. Suddenly words disappeared and only their first letters remained (as in *AWOL*), not in slang but in casual communication. It seems to have begun with *LOL* ‘laugh out loud’; hence *LOL-ing* and *lolspeak*. This surrogate language (*BRB*

‘be right back,’ *TUL* ‘talk to you later,’ along with the by now familiar *asap* ‘as soon as possible’) and emotions would probably have arisen even if the correspondence between the letters and sounds of English were more regular, but not knowing how to spell the most elementary words gives an additional impulse to this nonsense. Only in English are people taught from early on to spell every word and constantly ask one another: ‘How do you spell it?’

Indifference to good spelling (it is good only insofar as it has been sanctified by tradition), lolspeak, and so forth testify to the triumph of low culture. In principle, this phenomenon should neither surprise nor worry us too much. Popular (low) culture has always been victorious. Wilderness takes over and goes through the slow process of cultivation, to be engulfed by a new wave of degradation. Language is a classic battlefield of such forces. From the point of view of Old English, Middle English is unthinkably vulgar, and Chaucer would have been horrified by Shakespeare’s grammar. But total anarchy (in our case, chaotic spelling: *alot of there books; our team has one*) and self-admiring silliness (*due it 4 m@ = do it for Matt*) have nothing in common with culture in any sense of this term (*due* for *do* and the other way around is a typical Americanism, like *deep-seeded* for *deep-seated*.)

The financial cost of teaching English spelling is not my concern. Other participants in this conference have shown that the money wasted on learning what need not be learned and on remedial courses could have fed a continent. Even the greatest achievement in this area (becoming a finalist in a spelling bee) looks like a deformity. English, a hard language to foreigners, is made almost insurmountable to them. Who has not heard them pronounce *none* as *nonna* and rhyme *dove* with *drove*! Low culture has reformed spelling without our permission. We should harness its energy, make friends where we now have only enemies, and carry out the reform in a rational, scholarly way.

The campaign made famous by Shaw, Carnegie, and a host of distinguished scholars stalled not only because two world wars and the events that followed them disrupted the natural order of things. The proposals were not realistic. The habits of the educated part of society cannot be destroyed overnight. A new alphabet or a spelling resembling some sort of phonetic transcription are utopias. The worst idea is to tamper with high frequency words (however much they may gain from such interference): *Inglish*, *u* (=you), and *cum* (*come*), if they ever happen to be accepted, should be introduced at the end of the reform. Nor should we begin with *giv*, *liv*, and *hav*.

Consensus is probable with regard to the redundancies whose disappearance does not shock. Serious objections to replacing *-our* by *or* and *-ise* by *-ize* everywhere (the American way) cannot be imagined. The sky will not fall if only *sk-* remains where now *sk-* and *sc-* alternate for no reason at all (certainly not on etymological grounds). Some mute letters may go away without anyone’s noticing it. A set of such carefully thought out changes was drafted at the dawn of the movement for spelling reform. Before reviving that movement, we must have a version of such changes in our portfolio. More likely, the reform, if it ever becomes reality, will have to advance at a snail’s pace: first *color* (outside the United States), then *advertize*, then *skanty*, *skamper*, etc; then *rebellion* and *begining*, then *nock* and *naw* (*knock*, *gnaw*). However, at this time we should convince the public that some reform is at all necessary.

We have come to Coventry to celebrate the centennial (centenary) of Spelling Society. Clearly, so far there is nothing to celebrate, but if we do our work cleverly, the tide may turn. I have written *centennial* (*centenary*) for a purpose. We can succeed only if those interested in the reform in Great Britain and the United States join forces. The rest of the English speaking world will follow us. This

society exists for practical work, not for a

ceremonial observance of anniversaries.

¹ See, for example, his books *Greek Roots and Their Modern Spellings: A Dictionary of Roots Transliterated from Ancient Greek with Their Modern Spellings*. Yorktown Heights, N.Y.: Leonardo Press, 1989; *Latin Roots and Their Modern English Spelling: A Dictionary of Latin Derived Roots and Their Modern English Spellings*. Camden, M.E.: Leonardo Press, 1999. Of interest are also his books *Reading, Writings, and Creativity*. [Seattle, WA]: B. Straub, 1973, and *Solving the Literary Mystery*. Yorktown Heights, N.Y.: Leonardo Press, 1983. The author of close to thirty books, he has promoted the case of English spelling like few others.

² It is, in fact, derived from Nordic root 'ey', which means 'island', and which for example provides the final syllable in the 'Chiswick Eyot' in the river Thames. 'Isle' on the other hand is derived from Latin 'insula'.

³ Particularly useful is Walter W. Skeat's brochure *The Problem of Spelling Reform*. *Proceedings of the British Academy* 1905-06. London, [1906], and Thomas R. Lounsbury's book *English Spelling and Spelling Reform*. New York, London: Harper and brothers, 1909. Lounsbury is available in a modern reprint (Westport, CT: Greenwood Press, [1970]).

⁴ See the discussion of 't-voicing' in Prof John Wells presentation.

Dr Valerie Yule

The international costs of English spelling, and the comparative costs of improvement

Many literate people think that the only problem with spelling is that it is so hard to spell – but its really big cost is how it handicaps learning to read. Our spelling prevents over 600 million people who are less advantaged from being able to read adequately, or to read at all, in English.

Non-native speakers of English now outnumber native speakers by three to one. There are between one and two billion speakers of English world-wide, but only about 350 million of these are native-speakers living in the USA, UK, Canada, Australian and New Zealand. English is now the world's lingua franca for commerce, science, technology, education and transmission of cultures. The question is being raised - who owns the English language and its future?

Non-natives increasingly use English as the medium to communicate with each other – for example, within the EU. But when the written language cannot be used to stabilise speech, a variety of spoken Englishes are developing that could become mutually unintelligible.

It is disastrous that English spelling is a barrier to learning spoken English from the written, or the written language from the spoken. The costs are in international communication, economic progress, and social development, as well as the personal human costs we see all around us.

This spelling barrier hinders developing countries in using English in education across multilingual divisions. Local teachers cannot cope. Yet English for them would have the advantages of ready-made educational materials, and the value of wider literacy in English for their countries' economic progress. Papua Niugini, for example, is a multilingual nation which now uses a simple-spelling pidgin for the national language rather than continue with English. Australian aboriginals can learn to

read in their native language in six months, but in pre-University courses, I have seen the peculiar nature of English spelling flummox them.

Spelling also hinders the progress of Anglophone countries, as higher literacy standards becomes increasingly essential for technology, commerce and democratic citizenship. Anglophone nations have enormous costs in trying to improve literacy, and except for the special case of Canada, have the economic indicator of rising foreign debts. Finland, Netherlands, Germany, Japan, and Korea have high literacy, and high current account surpluses relative to GDP. All have made major or minor reforms of their writing systems in the past 150 years. Finnish and Korean are probably the easiest writing systems in the world. English undergraduates studying German can spell better in German than they can in English. Japan has a very easy introductory writing system for beginners ('syllabic' hiragana), which gives learners confidence to work hard on five additional scripts for an adult system that gives fast visual access to meaning.

Literacy teaching in English failed with 'Whole Language' methods¹ that tried to ignore spelling. Because of spelling irregularities, phonics teaching methods require time-consuming rote-learning, and enormous expense in educational materials and remediation. Early literacy failure and higher rates of dyslexia are linked to spelling, leading to school failure and lower employability.

In the past, a perceived 'benefit' of difficult spelling was as a social barrier to upward mobility, because it is the disadvantaged who find the spelling most difficult. But other often claimed benefits of difficult spelling for the literate can be shown to be illusory, except for the fact that they have mastered it. It is not 'dumbing down' to stop requiring massive rote-learning of

English spelling by all those who lack verbal skill, because students would have more time and opportunity for more rational and urgent studies.

The comparative cost of improving English spelling

The costs of irregularities in English spelling are shown to be great. But would the costs of reforming them be greater still? Is English spelling like a great QWERTY keyboard, still with us because switching to something more sensible seems too hard?

There are two questions here: What are the difficulties of English spelling that need repair, and how great would be the cost of various strategies for reform. I put forward a particular case, challenging assumptions and turning them on their heads.

As researchers such as Masha Bell have shown, English spelling is basically a regular system. The serious difficulty of English spelling lies in its unpredictability, chiefly through surplus letters in words, and multiple vowel spellings that are often misleading. This is a striking example of how enormous problems can be caused by very small things. The horse-shoe nail that loses the kingdom, in fact².

It has often been argued that reform is impossible because the costs of starting again from scratch would be prohibitive, requiring vast new publishing and re-training, loss of access to everything now in print, and disturbance to inter-language relationships.

But the only justification for the costs of radical change would be a technological breakthrough to a writing system that could cross languages, like Chinese but without its difficulties. Many proposed reforms have sought radical changes in sound-spelling relationships or alphabet characters, but the only successful precedents have been in largely illiterate societies, such as the Turkish switch from Arabic to a Latin alphabet in 1928. Another great change, switching to a Continental

vowel spelling system, has been advocated as more internationally useful. However, my analyses show that this would be as disruptive to overseas users of English as to the native-born. It is the consistency of a system that learners find easy – as we find when we ourselves learn another spelling system such as German in half an hour.

Many successful experiments have been made with various phonemic initial learning spellings, including i.t.a.³ They assured learners' early success, but faced problems of necessary unlearning in transition to present spelling. The problems of teacher training, materials and implementation of an unfamiliar beginners system were not overcome.

But is radical phonemic change the only possible solution? Another direction has been taken by other modern alphabetic writing systems. They improve the systems they already have. We now have considerable cognitive psychological research that can be applied on the needs and abilities of users and learners. It would cost no more than the present multifarious 'reading schemes' and streams of spelling books to use an initial phonemic learning spelling that led into the present English spelling system but with the 'traps' cleaned up. The dictionary pronunciation key could be also the key to reading for beginners, who then, instead of rote-learning unpredictable spellings, were given simple linguistic principles that introduced morphemic modifications, for rapid access to adult spelling that was read by both eye and by ear. It could be so close in appearance to present spelling that everything now in print remained accessible, visible word relationships were enhanced, and present readers required no retraining. For example, could learners cope, and those literate now avoid visual disturbance, if thirty extremely common irregular words were retained, and two possible spelling patterns could represent the same sound? Dictionaries could accept more consistent spellings of vocabulary in the usual way, as alternative acceptable

spellings, to survive or drop out by popular usage.

It is time for the vast and costly reading research of the past 130 years to switch to experiments to find the most useful principles to make present spelling optimally consistent and predictable for all categories of users and learners, with minimum disruption to the present appearance of print. The Internet is a

flexible, inexpensive, global medium for experimenting. SMS texting shows popular readiness for removing impediments in spelling, and abilities to do so. An International English Spelling Commission is needed to monitor research and recommendations.

References accompanied the handout for the conference, but can also be supplied.

¹ And related ‘whole word’ or ‘look and say’ methods:

http://en.wikipedia.org/wiki/Reading_education.

² ‘For want of a nail, the shoe was lost; for want of a shoe, the horse was lost;
For want of a horse, the rider was lost; for want of a rider, the message was lost;
For want of a message the battle was lost; for want of a battle, the kingdom was lost’.

³ <http://www.omniglot.com/writing/ita.htm>.

Mr Tom Zurinkas

The costs of poor reading skills

Introduction.

Hello. Greetings to all. I am truly honored to have been invited to speak at this conference on the 100th anniversary of the Simplified Spelling Society, now called the Spelling Society.

My name is Tom Zurinkas creator of truespel. For over 20 years phonetic spelling has been my passion. Truespel is the world's first and only spelling system based on English that can also serve as a 'pronunciation guide' in dictionaries. You could think of it as the end result of the quest for a regular, phonetic spelling of English. And you need to know where you are going before you start to go there.

Truespel (spelled as one word with one 'l') is available for free via the converter at truespel.com. The web converter there takes truespel everywhere by respelling the entire internet in truespel phonetics.

I thank the Society members for their input on truespel through the SS email forum

Executive Summary

We in the SS feel that the non-phonetic spelling of English is the final brick wall that must be broken down to increase reading skills. The data I give here show the frustration of educators and governments in boosting poor reading skills and the commensurate costs involved. With governments coming into play for reading instruction, perhaps they might at last focus on the primary problem that the SS recognizes – that the final barrier is English spelling itself.

The topic today is the cost of poor reading skills. My data are from internet articles and forums I have frequented over the years. Many costs are cited as well as many methods to relieve them. While it is frustrating to see failure, each failure is a step toward the right solution.

My own unique truespel approach is to recognize not only that English spelling is user unfriendly, but present phonetic spelling is user unfriendly as well. The truespel way forward is to solve both problems at the same time by first analyzing English spelling as I have done, finding the best spelling for English sounds as I have done, and going forward with a simple phonetic spelling that then leads to simplified English spelling. If English spelling were phonetic, it has the potential to cut down English dyslexia by half, according to Paulesu in Science 2001¹.

How Many Poor Readers Are Out There?

Statistics Canada² in 1997 found that among 16- to 65-year-olds for six English-speaking nations 42% to 52% were very poor readers or illiterate.

In 2003 a sample of adults in USA was given a reading proficiency test and only 13% were rated proficient (87% not proficient). Surprisingly, only 30% of adult college graduates scored as proficient in literacy on that test.

For adult literacy, Thomas Sticht³, an adult reading expert, reports that testing in 1992 and again in 2003 shows little or no improvement in literacy.

According to a 1992 study by the National Institute for Literacy⁴, '43% of Americans with the lowest literacy skills live in poverty and 70% have no job or part-time jobs. However, of Americans with strong literacy skills, only 5% live in poverty.'

A basic writing skills survey in the UK undertaken by educational software developer Basic Writing Skills UK Ltd⁵ recently revealed that 67.97% of Britain's adult population has below average basic literacy skills.

The Biggest Cost is Education.

Researchers presented literacy costs at a symposium held at Columbia University USA⁶.

- High school dropouts cost the US about \$158 billion in lost earnings and \$36 billion in lost state and federal income taxes for each class of 18-year-olds.

- Increasing graduation rates in the US by only 1% would correlate with about 100,000 fewer crimes annually, saving \$1.4 billion a year in law-enforcement and jail costs.

- Increasing graduation rates in the US by 10% would correlate with a 20% reduction in murder and assault arrest rates, reported by a group called 'Fight Crime: Invest in Kids'⁷. A lot of bad behavior comes from the low self-esteem of not reading well.

Reading Problems Lead to Dropouts

'Poor readers are six times more likely to drop out of school than typical readers, also they are three times more likely to consider or attempt suicide', according to a study by Stephanie Sergeant Daniel⁸.

Dyslexia is a big part of reading problems. Dyslexia (the inability to read by otherwise capable folks) accounts for 80% of all learning disabilities in the US and UK. It affects between 5% and 17% of the population according to the USA National Institute of Health⁹. Interestingly, their report also says that phonics instruction is a good step for dyslexics to rewire their brains. The brain needs channeling through the decoding part of the brain to build the automatic word recognition center of the brain. Proper instruction can accomplish this, as can be seen with functional MRI brain blood flow studies.

Dyslexia was found in 18% to about 22% of boys, compared with 8% to 13% of girls from ages 7 to 15 according to the Journal of the American Medical Association¹⁰.

The US Congress Tries to Help

In 2002, the U. S. Congress passed the currently-in-effect No Child Left Behind Act¹¹. It holds that schools receiving federal dollars should use only educational programs or practices that have been proven scientifically effective.

Congress then established the 'Reading First' program¹², to institute a 'scientific' approach to teaching reading in the early grades. Reading First has been called 'the largest concerted reading intervention program in the history of the civilized world.' Its cost so far is \$5 billion out of taxpayers' pockets.

For Reading First, schools choose from a list of approved reading instruction programs. Unfortunately, the schools have not picked so well. While Reading First is not hurting, it is not helping students so much. Overall reading comprehension for the focused grades of 1, 2, and 3 has not increased. Funding has been reduced to \$400 million this year by Congress, cut by 60%. The cost of federally funded and mandated tutoring has doubled in each of the past two years. This is a cost to taxpayers. Tutors are paid as much as \$1,997 per child and could become a \$2 billion industry. Tutors can help keep a child from being held back.

A held back child means another year's cost to educate that child. Education spending in the USA during 2004-05 on average was \$10,377 per child. Some say an additional \$20 billion should be spent, especially for high tech gear despite \$500 billion of taxpayers dollars already spent for school improvements from 1995 to 2004.

Testing School Performance is Tricky

US national government data often differ from US state data. They use different standards. Recent state data show the average fourth grade proficiency is 70%. However, the yearly national report card test known as the National Assessment of Educational Progress (NAEP)¹³ finds that

only 25% of US fourth graders are proficient readers.

Georgia just updated the difficulty of its tests, and the results out just last month show 40% of its 8th graders are in danger of being held back¹⁴. Some test.

Bill Gates, the billionaire philanthropist from Microsoft, said in a September 2007 Parade Magazine¹⁵ interview that we need proficiency tests and that ours should be tougher and more uniform. 'Testing is the only objective measurement of our students,' he contends.

He also says that as for those who say tests will stifle creativity, lead to dull classrooms, and teach students only how to pass tests, he replies: 'If you do not know how to read, it does not matter how creative you are. More than a third of the people with high school diplomas have no employable skills.'

Bill Gates argues for using phonics to teach reading. 'When we gave up phonics,' he says, 'we destroyed the reading ability of those kids.' Behind this statement one might think Bill might be thinking; 'Wouldn't it be great if spelling could be made more phonetic.'

The NAEP national report card says that high school senior scores in reading (as well as math and science) and graduation rates have all remained flat over the past 30 years.

The 'Nation at Risk'¹⁶ study of twenty years of 'educational improvements' since 1983 revealed no substantial change in our nation's educational status. The only way to reduce school dropouts and increase student performance is to put effective teachers in the classrooms, said Sandy Kress¹⁷, who served as a senior education adviser to President Bush.

Dropouts

A lack of the ability to read can lead to high school dropouts, which create a big cost.

Nearly 80% of dropouts depend on government health-care assistance.

In California each year, about 120,000 students fail to get diplomas by age 20, according to the California Dropout Research Project report of 2008¹⁸. It is estimated that each annual wave of dropouts costs the state \$46.4 billion over their lifetimes because people without a high school diploma are the most likely to be unemployed, turn to crime, need state-funded medical care, get welfare and pay no taxes. Former U.S. Secretary of State Colin Powell said, 'When more than one million students a year drop out of high school, it is more than a problem, it is a catastrophe'¹⁹.

Nearly half of the Latino and African American students due to graduate in 2002 when they started high school failed to complete their education, according to a Harvard University report.²⁰

Poor Reading Ability and Crime

A study reported in the American Journal of Child Development looked at pre-school twins in Wales, UK, born in 1994-5 comparing behavior and reading ability. No genetic link was seen. Those who had difficulties at age five with readiness to read, such as a small vocabulary and poor verbal skills, became increasingly involved in anti-social behavior - mainly bullying others, telling lies, stealing.' 'Their reading skills had gone down as well. And those who were aggressive when they entered school also fell further behind in reading,' This was not exhibited in girls and was not genetically linked to twin siblings.

A 1999 study on prisoners in Texas done by the University of Texas Medical Branch in Galveston²¹ found that 41.5% of inmates scored low enough on reading tests to indicate they were dyslexic.

More than a third of the adult convicts released from Texas prisons in 2002 were functionally illiterate, and half of those could not read at all according to the Dyslexia Research Foundation of Texas²².

They found much the same true for youths. Those who could not read were much more likely to end up back behind bars as adults. Among teen offenders incarcerated by the Texas Youth Commission, the study found, 'Eighty-three percent were reading below grade level when they were released, and almost half of those were reading at four or more levels below expectation.'

That study said that for every 1,000 non-readers released from prison it costs taxpayers \$4.8 million more in recidivism than those released that can read.

That study also said that for every 100 teenage offenders released with a second-grade reading level, compared to an 11th-grade reading level, it costs taxpayers almost \$2.6 million more in recidivism. The recidivism rate is 62% for slow readers versus 36% for good readers.

Yet for Those Who Do Graduate from High School

'Only 18% of our high school graduates are ready for a good job or college,' said Charles McMahan, chairman of Texas Gov. Rick Perry's Business Council²³.

In Maryland, 33% of incoming high school freshmen will need extra help in reading, according to the 2006 Maryland School Assessments²⁴. In Virginia, 24% of 2007's high school freshmen needed additional support²⁵. And according to 2005 test results in Washington D.C. public schools, 71% of middle and high school students needed special help with reading²⁶.

California State University reports²⁷ that 48% of freshmen entering the college campus in 2003 were unprepared for college-level English and 41% unprepared in math. The past seven years have produced no changes in English, slightly better in math.

Is English so important? The news from February 2008 is that the best predictor of college success is the writing portion of the SAT (Scholastic Aptitude Test) given to

college-bound. The administrators of the SAT compared test scores from 150,000 freshmen entering 110 colleges in 2006 to their year end grades. The study suggests that the writing test is the best single predictor of freshman grades²⁸. The University of California drew a similar conclusion from an analysis of its incoming 2006 freshmen and their grades.²⁹

These findings show that higher literacy skills lead to higher education.

Immigration is a Factor

Hispanics, the nation's largest and fastest-growing minority group, now account for about one in four children under 5 years old in the United States, according to U. S. Census Bureau. The study reported in the May 1 2008 Washington Post³⁰ predicts that the Latino population will double from 15% today to 30% by 2050.

The number of students who are learning English has more than doubled, from 2.03 million in 1990 to 5.01 million in 2004, according to the National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs³¹.

Don Soifer in July 2006³² says that possessing strong English language skills is critically important to succeeding in the United States. Immigrants to the United States can raise their earnings by well over 20% if their ability to speak English is raised from 'not well' to 'very well.'

There is an Upside to Being Bilingual.

Instead of being handicapped, bilingual children who learn their family's language as well as English do better at school, research suggests. A study appearing in the Review of Educational Research, by Robert Slavin and Alan Cheung of Johns Hopkins University³³, showed that children in bilingual programs consistently outperform those in all-English programs on tests of English reading.

A team from Goldsmiths, University of London, analyzed a group of primary school children in England using two languages in math and English lessons³⁴. They found that, using two languages actually deepened their understanding of key concepts.

What Can Be Done for Literacy

Teacher training is an issue. A report called 'Educating School Teachers'³⁵, released in September 2006 says 'Despite growing evidence of the importance of high-quality teaching, the vast majority of the nation's teachers are being prepared in programs that have low graduation standards and cling to an outdated vision of teacher education,' The report, issued by the Education Schools Project says that 61% of education school alumni say their teacher-education training did not prepare them well to cope with the realities of today's classrooms, according to a national survey conducted for the study.

According to a recent report released by the National Council on Teacher Quality³⁶, only 11 of 72 colleges surveyed nationally taught all five of the basic tenets of the 'science of reading' to prospective teachers. Those five tenets, according to the National Reading Panel of 2000, are the most effective approach to teaching reading. They include phonemic awareness, phonics, fluency, vocabulary, and comprehension. The 'No Child Left Behind Law' and 'Reading First' programs adhere to these tenets. However, nearly a third of the surveyed institutions made no reference to reading as a science in any of their reading instruction courses. In addition, the report found that the most commonly used college literacy textbooks are not founded in scientific research at all and that many college courses for prospective teachers are more fluff than substance. If teachers did use the scientific approach to reading instruction, the National Council on Teacher Quality estimate the present reading failure rate of 20% to 30% could be reduced to 2% to 10%.

In my home state of Florida, teachers are evaluated yearly. In an attempt to provide accountability of instructors, Florida established the Florida Comprehensive Assessment Test (FCAT) to test how well students have learned. In 2007³⁷ the failure rate jumped from 15% in 2006 to 19% in 2007 for third-graders. Third-graders can be held back if their scores are at the lowest level. Schools are given a grade from A to F based on student results.

If students do well on the FCAT the school gets an A. To award high achieving schools, Florida distributed \$134 million to more than 1,500 schools in 2006 that scored an 'A' on the FCAT or made substantial testing gains over the previous year. Thus, schools are graded on students' performance. This kind of accountability does not go over well with all people.

'Teacher education is the Dodge City of the education world',³⁸ said Arthur Levine, president of the Woodrow Wilson National Fellowship Foundation, and former president of Columbia University Teachers College. 'Like the fabled Wild West town, it is unruly and chaotic. There is no standard approach to where and how teachers should be prepared. Accreditation does not assure program quality either, according to the report. In 2005, of the top 10 out of 100 graduate schools of education ranked by U.S. News and World Report³⁹, three were accredited, but in the bottom 10, eight were accredited. It looks practically like a reverse relationship.

However, teachers appear well trained. The National Education Association President, Reg Weaver says⁴⁰, 'Today, teachers are more educated and experienced than ever before.' The majority of the nation's 3 million teachers have at least a master's degree and average 15 years experience. In addition, more than 75% of all teachers participate in professional development related to their grade or subject area.

So, what is going on, here? There are lots of efforts with not much improvement in reading. Have we reached a barrier beyond

which we cannot go? Perhaps it can be shown now that different approaches, such as simplifying spelling, could be the only way to break through the lid on reading performance. Can we finally see the forest for the trees?

Improving Reading Instruction Methods

Linda Borg writes in November 2007⁴¹ that some schools have turned to 'direct instruction' to master basics of reading. Direct instruction is an old style teaching method. It has its roots in phonics or skill-based instruction, a bottom-up approach that starts with the basic parts of words and moves toward reading as a whole. First lessons begin with sounding out letters, followed by combinations of letters. Proponents of phonics instruction say that children are better able to decode words after learning how to decode sounds and letter groups.

A 1977 study, Project Follow-Through⁴², compared the achievement of high-poverty students receiving direct instruction with students in other experimental programs. Direct instruction students outperformed students in every other program on every academic measure. Follow-up studies also showed that students taught this way in the early grades experienced lasting benefits, according to a report by the American Federation of Teachers⁴³.

However, there is a problem. The floundering 'Reading First' initiative is also said to be following 'direct instruction' methods and also following the advice of the USA National Reading Panel on the 5 tenets of best reading instruction techniques. Yet reading comprehension appears not to have gained significantly. A recently reported observation by some is the possibility of foot-dragging by educators toward the No Child Left Behind goal of 100% literacy by 2012, claiming backloading by educators to show best results at the end rather than beginning of the schedule⁴⁴.

Perhaps the UK will do better with their reading instruction patterned on the successful tests using 'synthetic phonics' which appears to use the direct instruction method as well.

Other Tactics to Reduce Literacy Costs

Patricia Kuhl, co-director of the Center for Mind, Brain and Learning at the University of Washington, explained 'Our studies now show that infants' abilities to distinguish speech sounds at 6 months of age correlate with language abilities'⁴⁵. 'The better infants are at distinguishing the phonetic units, the better they are years later at other more complex language skills. Already by 12 months, infants have the rules down,' Kuhl said. Children with language and reading problems have trouble distinguishing the basic sound units used in speech. It has been found by Stanovich (1986)⁴⁶ that 'phonemic awareness' is a key attribute of successful readers.

A 2008 Harvard Education letter cites a report that says literacy starts at home. Teachers have long urged parents to read aloud to their children. But now there is a second and perhaps more powerful message: Talk to your kids, too. Mounting research links language-rich home environments with reading success. Children from three to five are 'ripe' for engaging in rich language learning.

To help with this, a USA company has developed an unusual approach. It is a voice recorder that tucks into a child's clothing and records all the sounds in the environment⁴⁷. At the end of each day software evaluates the exposure the child has had to verbal stimulation and the child's own utterances. The device generates percentile rankings that help assess a child's language development. The inventor, Terrance Paul, was inspired by a well-known 1995 study that found that professional parents uttered more than three times as many words to their children as did parents who were on welfare. The children in the less talkative homes turned out to be less verbal and to have smaller

vocabularies. Other studies have suggested that these gaps affect later professional success.

Boys Versus Girls.

Boys are not doing so well in literacy and education. Today there are 133 female college graduates for every 100 males. During the K-12 school years, girls have long tested better in reading and writing on national examinations. However, boys outperform girls in math and science tests, though the gap between the sexes is narrowing in these subject areas.

Boy/girl statistics are given by Indiana public schools:
Dropouts for 2002 and 2003 are 60% boys.
Held back pupils for 2002 through 2004 are 60% boys.
Special education pupils in 2002-2004 are 66% boys.

Peggy Walsh-Sarnecki writes in the Free Press Education Writer, May 2007, that boys learn differently than girls. 'You can teach boys anything as long as you do not do it in a boring way.'⁴⁸ She says, 'Women, with the best of intentions, teach classes in ways that are compatible with their learning styles. People are concerned. Boys are dropping out more than girls, fewer boys are graduating from high school than girls, fewer boys are going to college than girls'. 'I think a lot more of it has to do with temperament,' Cheryl Somers, assistant professor of educational psychology at Wayne State University, is quoted as saying. 'Boys are a lot more active. So if you are not doing something to stimulate them they get bored. Boys can make the grade, if they are not bored.'⁴⁹

A new 2008 UK study⁵⁰ claims boys at primary school perform 'significantly' better in English tests if they are taught in classes with fewer girls. Research from Bristol University, which used data from every state school in England, found that as the proportion of girls rose, the results achieved by their male classmates fell. Steven Proud, who carried out the work, concluded it

'might be beneficial for boys to be educated in single-sex classes in English.

In the US, Secretary of Education Margaret Spellings has broadened federal regulations on single sex programs⁵¹. The number of single-sex programs in public schools nationwide has jumped from three in 1995 to more than 366 today, according to the National Association for Single Sex Public Education.

'Boys learn more from men and girls learn more from women.' That is the upshot of a study by Thomas Dee, an associate professor of economics at Swarthmore College⁵². Dee's study is based on a nationally representative survey of nearly 25,000 eighth-graders that was conducted by the Education Department in 1988. Today roughly 80% of teachers in US public schools are women.

Smaller Schools Appear to Work

In New York City the mayor's decision to break up many large failing high schools has achieved some early success. Graduation rates at 47 new small public high schools opened since 2002 are substantially higher than the citywide average for June 2007. For the smaller schools, 73% graduated in 2007 compared to 60% in 2006. Not least of all, 81% of their graduates apply to college.

Optimum USA high school size according to a 1997 study by Valerie Lee and Julia Smith⁵³ should enroll between 600 and 900 students. Size matters, they believe, because it affects social relations within the school and the school's ability to provide a strong curriculum for all students. It appears that enforced bussing does not help.

Researchers at the National Foundation for Educational Research⁵⁴ in England in 2002 looked at 3,000 high schools and found best results were obtained in medium-sized schools with a body of about 180 to 200 students per grade, and the worst in the very small or very large schools. Boys and girls also did better in single-sex schools,

especially girls in single-sex comprehensive schools.

Private Schools No Big Difference

The Center on Education Policy⁵⁵ released a report examining the academic outcomes for low-income students attending public urban high schools compared to those attending private schools. The study, based on an analysis of the National Educational Longitudinal Study of 1988-2000, finds that, once family background characteristics are taken into account, low-income students attending public urban high schools generally performed as well academically as students attending private high schools.

Homeschooling Appears to Work

At the Scripps National Spelling Bee in June 2007, 12% of the competitors were homeschooled compared to 2.2% of the nation's school-aged children.

Homeschooled students have won the past three Florida state spelling bees. Homeschool advocates say homeschoolers win because they have focus, family support and a genuine interest in their education.

In the national geography bee, four of the last seven winners of have been homeschooled.

While homeschooling was once illegal in many states, it has been legalized in all states since 1993. The movement is said to be growing by 10% or more a year.

Virtual Schools May Help

State virtual schools (attended at home via computers) are among the fastest growing programs in K-12 public education in the US. Twenty-eight states in 2006 have virtual school programs, up from 4 states in 1997. In 2005, some 139,000 students enrolled in at least one course through a state virtual school. Utah leads the way with Florida second.

Almost one-third of all Utah high-school-age students participated in Utah's Electronic High School last year, 2007. Student enrollment in that program jumped from fewer than 1,000 students in 2000 to nearly 50,000 in 2006.

Virtual courses in Florida have grown seven-fold over the past six years. We might expect a half-million students to enroll in state virtual schools in just a few years.

Blogging Helps Literacy

A survey of teens, conducted by the Pew Internet and American Life Project⁵⁶, explored the links between out-of-school writing and informal electronic communication. Results show that 47% of teen bloggers write outside of school for personal reasons compared to 33% of teens without blogs. Sixty-five percent of teen bloggers believe that writing is essential to later success in life; 53% of non-bloggers say the same thing.

Bottom Line

The bottom line is that English appears to be defiant to the many attempts to improve reading. The biggest reason is the nature of the beast itself, the irregular letter-sound correspondence of English spelling and the difficulty it creates in decoding English as presently spelled. The quest of the SS has always been to regularize spelling and solve the decoding problem to help those least adept to read and write.

One proof that decoding is a problem is that data by Paulesu 2001⁵⁷ show that English has twice the number of dyslexics than languages more phonetically spelled. Thus, the SS has always had a worthy mission focusing on the major problem of English for learners. Perhaps in academia when all other efforts are exhausted for teaching reading and writing, the educational establishment will realize this.

We here in the SS have various approaches to ameliorating the problem. Many of us

have given much effort to it, all with the best of intentions. I commend us all.

My truespel phonetic notation establishes a phonetic English spelling in a special way that can also serve as a 'pronunciation guide' in our dictionaries. It is the only notation of English that can be the great integrator. It can link our dictionary keys, translation guides, and beginners reading instruction methods for the first time. Truespel serves as a model way to go in

achieving an end result of regularization of English spelling. We need to know where we are going before we start going there.

I congratulate the SS on its 100th anniversary. And I congratulate it on its insight. For it seems as though, with all the trouble that education has had in breaking through literacy levels, it might consider the message of the SS and join in making the English language easier for us all to do - Simplified spelling.

¹ Paulesu E et al, Dyslexia: Cultural Diversity and Biological Unity, Science March 2001.

² Organization for Economic Cooperation and Development, 1995, 1997.

³ <http://www.nald.ca/library/research/sticht/mar02/page1.htm>.

⁴ <http://www.nifl.gov>; <http://www.newswithviews.com/Turtel/joel4.htm>.

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<http://www.freshbusinessthinking.com/articles.php?AID=1190&Title=Two+Thirds+Of+UK+Adults+Fail+Basic+Literacy+Test>.

⁶ <http://www.tc.columbia.edu/news/article.htm?id=5343>.

⁷ <http://www.fightcrime.org>; <http://westenddumplings.blogspot.com/2008/08/drop-outs-public-safety-issue.html>.

⁸ <http://www1.wfubmc.edu/news/NewsArticle.htm?Articleid=1973>.

⁹ <http://www.nichd.nih.gov/about/overview/approp/CJ/upload/FY2005.pdf>.

¹⁰ Rutter et al. JAMA.2004; 291: 2007-2012.

¹¹ <http://www.ed.gov/nclb/landing.jhtml>;

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<http://www.azcentral.com/arizonarepublic/local/articles/2008/07/13/20080713edreadfirst0713.html>.

¹³ <http://www.ed.gov/its/americanreads/resourcekit/miscdocs/childstand.html>.

¹⁴ <http://www.edweek.org/ew/articles/2007/08/29/01read.h27.html?tmp=148207338>.

¹⁵ http://www.parade.com/articles/editions/2007/edition_09-23-2007/Intelligence_Report.

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<http://www.mysanantonio.com/news/metro/stories/MYSA010407.08A.teacher.evaluations.302f81a.html>.

¹⁸ <http://www.lmri.ucsb.edu/dropouts>.

¹⁹ <http://15in5.americaspromise.org/Pages/News.aspx?id=1340>.

²⁰ <http://articles.latimes.com/2005/mar/24/local/me-graduate24>.

²¹ <http://www.nifl.gov/nifl-povracelit/2004/0093.html>.

²² This foundation has no web site. Other references include

http://www.myomancy.com/2005/10/the_cost_of_dys.

²³ January 12, 2007: <http://www.excellenceintheclassroom.com/taxonomy/term/2?page=3>.

²⁴ http://www.washingtonpost.com/wp-dyn/content/article/2006/07/12/AR2006071201825_pf.html.

²⁵ *ibid*

²⁶ *ibid*

²⁷ <http://www.calstate.edu/pa/clips2004/january/30jan/mbee.shtml>.

²⁸ http://www.usatoday.com/news/education/2008-04-24-sat_N.htm.

- ²⁹ *ibid*
- ³⁰ <http://www.washingtonpost.com/wp-dyn/content/article/2008/04/30/AR2008043003397.html>.
- ³¹ http://www.washingtonpost.com/wp-dyn/content/article/2006/07/12/AR2006071201825_pf.html.
- ³² <http://www.nysun.com/opinion/importance-of-learning-english/39143/>.
- ³³ http://www.successforall.net/_images/pdfs/research_ELL.htm.
- ³⁴ http://ec.europa.eu/research/infocentre/article_en.cfm?id=/research/headlines/news/article_07_04_10_en.html&item=Infocentre&artid=3733.
- ³⁵ http://www.edschools.org/teacher_report_release.htm.
- ³⁶ http://www.nctq.org/p/docs/nctq_reading_study_app.pdf.
- ³⁷ http://www.palmbeachpost.com/localnews/content/local_news/epaper/2007/05/03/s1a_fcat_0503.html.
- ³⁸ http://www.education-world.com/a_issues/chat/chat194.shtml.
- ³⁹ *ibid*
- ⁴⁰ <http://www.nea.org/newsreleases/2006/nr060502.html>.
- ⁴¹ http://www.projo.com/education/content/mc_read_11-14-07_Q27KBA6_v15.282df36.html.
- ⁴² <http://darkwing.uoregon.edu/~adiepf/grossen.htm>.
- ⁴³ <http://www.wpri.org/Reports/Volume14/Vol14no2.pdf>.
- ⁴⁴ <http://crossroad.to/articles2/007/edwatch/8-1-foot-dragging-nclb.htm>.
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- ⁵⁰ <http://www.guardian.co.uk/education/2008/apr/27/schools.uk>.
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- ⁵² <http://www.cbsnews.com/stories/2006/08/27/ap/national/mainD8JOS1081.shtml>.
- ⁵³ <http://www.soe.umich.edu/adifference/lee/index.html>.
- ⁵⁴ <http://www.thirddeducationgroup.org/Foundation/HighSchoolSize>.
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- ⁵⁷ Paulesu E, Dyslexia: Cultural Diversity and Biological Unity.

Dr Stephen Bett

The cost argument in historic appeals for spelling improvement

The caust argument in historic apeels for spelng reform

Đè còst ärgiùment in hìstòric àpēlz fôr spelñ reform

Đə kɒst ɜrɡəmənt ɪn hɪ'stɔːrɪk ə'pi:lz fɔː speliŋ rɪ'fɔːm

I am showing three transcriptions of the title of this essay because most of the early (PRE 1906) appeals for spelling reform were for a near 100% phonemic reform. The name of the active subgroup of the Philological Association advocating reform was the PSC or Phonetic Spelling Council. The name suggests that the imagined reform was very close to one symbol per sound.

All three of the transcriptions above can be considered radical but they are not equally phonemic. The first transliteration, called New Spelling, uses digraphs to augment the alphabet and basically limits reform to stressed syllables. Nue Speling was recommended by the Spelling Society until 1960.

The second, based on Webster's dictionary notation, uses 4 diacritics to clarify the sound associated with a letter. In TS, each vowel letter references up to a half dozen phonemes. Webster adds one new character to represent schwa. The notation above has 6 ways to represent an unstressed diminished vowel à è ì/y ò ù. These diminished vowels provide an efficient way to mark irregular stress. The third is IPA, now the most popular English dictionary pronunciation guide notation. The IPA adds over a dozen new characters.

Just before 1900, the focus seemed to change from publishing transcribed text, as in the title, to listing a few mild first stage reforms. The efforts of the radical reformers, who had up to this time been publishing journals in phonotype with a subscriber base of around 25,000, shifted to improving dictionary keys.

Before the shift of emphasis, phonotype in the form of Leigh's pronouncing print, provided support for the primary cost saving claim. Reform would save 2 years of schooling. It also demonstrated how phonemic spelling without digraphs saved on printing cost by reducing the number of characters per word by 16%. A 6 page essay could now be printed on 5 pages.

50% savings in the cost of elementary education (1893). 16% savings in publishing.

"It is currently stated by leading educators that the irregular spelling of the English language causes a loss of two years of the *scool* time of each child, and is a main cause illiteracy; that it involve an expense of many millions of dollars annually for teachers, and that it is an *obstacl* in many other ways to the progress of education among those speaking the English language." - *March, F.A. *1893 The Spelling Reform.*

No appeal for spelling reform has yet to included the student cost (a lost opportunity cost). If you effectively waste two years of someone's life, there is a cost involved. There is a cost associated with not using the most efficient technology. (*Jamison & Bett, 1973*)

Before one can estimate the cost of a spelling reform, one needs to know the kind of reform one is talking about. There only a 4% savings in printing if digraphs are retained and only surplus letters are eliminated. Some reforms are more backward compatible than others.

If those literate in the new code could still decipher the traditional code of today, then there would be no need to reprint books and restock the libraries in order to retain access to our heritage of print.

The same would be true if children were taught the dictionary key first (DKF) and then transitioned to something much closer to the traditional code. For this to work, it has to be possible to learn two codes faster than one. Although this may seem counter-intuitive, there is good evidence supporting this transfer of training hypothesis. As shown in the chart below, the cost argument is used by both those who advocate reform and those who oppose orthographic change. The lack of precision with respect to the type of reform makes it difficult to follow either argument. Opponents say it would cost too much

to change. Advocates argue that it costs too much

to retain the present system.

Arguments Against Reform

1. cost and inconvenience of change
2. unfamiliar alien appearance
3. more difficult to learn
4. will not be based on their accent
5. loss of rich heritage of print
6. loss of etymological connections
7. no coordination or consensus

Arguments For Reform

1. high cost of retaining present system
2. trade eye rhymes for ear rhymes
3. easier to learn and use
4. better to be based on a known accent
5. backward compatibility possible
6. plenty of false etymologies in TO
7. Compromise and agreement is possible

Reformers usually say that their main goal is to accelerate literacy and reduce the costs associated with illiteracy. However, few have said that they would abandon the movement if other ways were found to save 2 years of schooling.

This is because the logic of alphabetic spelling has a special appeal to reformers. Decoding the traditional spelling of 600 words may be achieved in 9 months but traditional encoding might take a lifetime. Many reformers like the fact that a pronunciation usually has a single spelling in a dictionary key. There are often a dozen or more plausible ways to spell a word in TS.

When transitioning from the dictionary key to TS, the student would learn 4 additional vowel spellings and a few additional consonant spellings. This would be sufficient to account for 85% of the spellings found in the dictionary.

Just because DKF students can read TS at a 3rd grade level in 9 months is no guarantee that they can spell. They could, however, spell a word close enough for the spell checker or computer based dictionary to generate a short list containing correct spellings. This is a skill that 30% of the 6th grade students often lack.

The spelling that can be taught would be 4 plausible vowel spellings and perhaps 6 plausible syllable spellings for each pronunciation. The second year DKF student would be able to spell /sizèrz/ one way in the dictionary key and over 140 different ways in TS. The student would not necessarily know the “correct” way. /s/ = s, c, sc, z, ss, zz, to list the more common options. Dewey found that schwa can be spelled in 34 ways but 6 ways account for most of the common options. /'sIz@rz/ can be spelled 3 x 2 x 4 x 6 (or 144) plausible ways .

Ellis listed over 10,000 different possible traditional spellings.

There is probably a cost associated with having to memorize the dictionary in order to spell well but no one has tried to determine what this cost would be. Plausible spelling (e.g., sizzers) is sufficient for communication. It was the way most people spelled before Johnson (1755). In the 1600's even surnames such as *Shakespeare and *Raleigh were spelled over 30 different ways.

Conclusion:

The cost arguments in early appeals for spelling reform were not much different from the cost arguments of today. A 2 year savings in the time required to teach literacy and a 16% reduction in the avg. number of characters per word achieved primarily by the elimination of digraphs.

What is needed is a way to demonstrate this since so many just do not believe it based on studies such as those done by Seymour which concluded that first year students in Italy and other countries with shallow orthographies were more advanced than third year English students.

For some reason such research does not seem to convince those who are opposed to reform. Others simply accept the burden of TS believing it can't be changed very much or very fast. The DKF, Dictionary Key First in a writing to read program has been demonstrated to accelerate both code literacy and traditional literacy. It achieved what Pitman and Downing were hoping to achieve with the ITA. DKF stands on its own as a way to save two years of schooling. It also advances the argument for reform. Perhaps when 50% of the population can read a dictionary key and also write in it, there would possibly be more support for adopting an orthography that was closer to the dictionary key.

Mr Jack Bovill

Close and thanks

I wish to thank all the members who prepared the displays around the room, that was very well done. Of course I really should thank John Gledhill and the rest of the organising committee: Nigel Hilton and Stephen Linstead who helped organise the displays. I thank also the technical team that enabled us to take the conference forward. We had approximately the same number of attendees as we had at Mannheim in 2005. I have found both days of this conference extremely interesting and extremely illuminating.

Annex 1

At the end of the conference, the Chair Jack Bovill invited the audience to suggest priorities for future action, and a list of nine immediate priorities was drawn up. He then asked those present to prioritise them. By consensus the main priorities were as follows:

1. Work with the American Literacy Council (ALC) to get a survey in the USA.
 2. Seek a political angle on this with any party, concentrating on a 'bipartisan' approach.
 3. Obtain support from teachers, who are usually told it is all their fault for poor teaching, and therefore their problem to sort out.
 4. Become the sponsors of surveys on spelling.
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Annex 2

Centenary Dinner

Address given by the Chair of the Spelling Society at the Society's Centenary dinner, 10 September 2008, University College London.

Eighteen of us joined together for the Centenary Dinner at the Terrace Restaurant, University College, London, courtesy of our President, John Wells. Apologies were received from John Gledhill and Julie Clayton, our Treasurer/Membership Secretary and Secretary. For our hospitality, our thanks must also go to Vladimir and Miriam who served us a delicious meal, liberally laced with wines, both white and red.

I found the occasion most interesting and I hope that you will reflect on what you learnt and share it with us. For me two highlights were that shortly Spanish will have more native speakers who use it as their mother tongue, than speakers of English as their mother tongue; and also that if I have contributed to the success of the Society, as Chris Jolly said, it is only because of what he did before me, when he was Chair. We all stand on the shoulders of those who go before us.

Accurate spelling with consistent rules are an essential for all learners. The Spelling Society remains receptive to all ideas that will raise awareness of the social problems that the irregularity of English spelling produces, the most significant of which is the very large annual production of functionally illiterate children from the educational system, the starting point of all the other subsequent problems.

In this, our second century, I look forward to a rapid resolution of this situation with your help.

Jack Bovill
Chair, The Spelling Society

Presentations were also made by Mr Chris Jolly and Prof John Wells.

List of those present:

John Wells, President
Jack Bovill, Chair
Annie Ashby
Julian Aubrey
Masha Bell
Richard Comaish
John Dalby
Mary Dalby
Nigel Hilton
Christopher Jolly

Nicholas Kerr
Stephen Linstead
Edward Marchant
Cynthia Payman
John Read
Vikki Rimmer
Jessica Shepherd
- (from The Guardian newspaper)
Kenneth Smith

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Spelcon 2008: Theme: The Cost of English Spelling

**Proceedings of the
7th International Conference on English Spelling**

Conference Report

The Spelling Society publishes articles on a wide range of subjects, in paper form and on the internet, which have some relation to spelling reform and improving literacy in English. Articles for inclusion should be sent electronically to the Editor in the first instance. Enquiries about membership may be submitted from the society's website.

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