Children’s Invented Spelling
What Have We Learned in 40 Years?

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This presentation

Initial explanations of invented spelling
How well have these held up?
What else can we learn?
Early spellings in writing development more generally
Classroom implications
But letter names don’t always help
### Spellings of vowels

<table>
<thead>
<tr>
<th>Letter names</th>
<th>Related to letter names</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAK</td>
<td>ALLS</td>
</tr>
<tr>
<td>FEL</td>
<td>LETL</td>
</tr>
<tr>
<td>TIM</td>
<td>BICS</td>
</tr>
<tr>
<td>KOK</td>
<td></td>
</tr>
<tr>
<td>HUMIN</td>
<td></td>
</tr>
</tbody>
</table>

### Nasals before obstruents

<table>
<thead>
<tr>
<th>Letter names</th>
<th>Related to letter names</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOPY</td>
<td>THAKQ</td>
</tr>
<tr>
<td>STAPS</td>
<td>SEK</td>
</tr>
<tr>
<td>GRAPO</td>
<td>THEKCE</td>
</tr>
<tr>
<td>NUBRS</td>
<td>AGRE</td>
</tr>
<tr>
<td>MOSTR</td>
<td></td>
</tr>
<tr>
<td>PLAT</td>
<td></td>
</tr>
<tr>
<td>WOTET</td>
<td></td>
</tr>
<tr>
<td>AD</td>
<td></td>
</tr>
</tbody>
</table>

### Intervocalic taps

<table>
<thead>
<tr>
<th>Letter names</th>
<th>Related to letter names</th>
</tr>
</thead>
<tbody>
<tr>
<td>LADR</td>
<td>letter</td>
</tr>
<tr>
<td>BODOM</td>
<td>bottom</td>
</tr>
<tr>
<td>AODOV</td>
<td>out of</td>
</tr>
<tr>
<td>WOODR</td>
<td>water</td>
</tr>
</tbody>
</table>
### Syllabic sonorants

<table>
<thead>
<tr>
<th>LITL</th>
<th>KITN</th>
</tr>
</thead>
<tbody>
<tr>
<td>PESL</td>
<td>SATNS</td>
</tr>
<tr>
<td>GOBL</td>
<td>OPN</td>
</tr>
<tr>
<td>SPESH</td>
<td>WAGN</td>
</tr>
</tbody>
</table>

### Initial /tr/ and /dr/

<table>
<thead>
<tr>
<th>AS CHRAY</th>
<th>JRA</th>
<th>GRADL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHRIE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHRAC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What do these children know?

Crucially, the alphabetic principle
(Rozin & Gleitman, 1977)
At least some letter names
At least some standard sound-spelling correspondences
Beyond that, they are willing to invent

Instructional implications?

Carol Chomsky argued
“Write first, read later”
The opportunity to write is empowering
What children create for themselves is what they truly learn

Quoting Piaget

“Children have real understanding only of that which they invent themselves, and each time we try to teach them something too quickly, we keep them from reinventing it themselves.”
Calvin

Jac
Supt

The boo y愤 The Bonn
And Bonn was Happy

shannon

mi Dog can rithe ca
ra Da Sorey
My dog can read and write. He can
Ants y nEay
Replications of 1970s work

Letter name effects, as in MI for *my*

Omissions of nasals before obstruents, as in AD for *and*

Use of D as well as T to spell taps

Single consonants for syllabic sonorants

Unconventional spellings of /t/ and /d/ before /tr/

Extensions and new interpretations

Omissions of consonant in clusters are not restricted to nasals in final clusters

Omissions of other consonants in initial positions of syllable-final clusters: OD for *old*, HOS for *horse*, FUOS for *fox*

Omissions of consonants in the second (and third) positions of syllable-initial clusters: SOREY for *story*, BO for *blow*, SET for *street*, AFAD for *afraid*

Role of syllable structure

Letter name effects are more limited than earlier work implied

![Proportion of consonant-consonant spellings](attachment:image_url)

Kindergartners  First graders

Treiman, 1994
New cases in which children’s classifications of sounds appear to differ from those of the standard writing system
SGIE for sky, TKN for chicken
Choices are not always straightforward

Children’s early spellings are influenced not only by phonology and phonetics but also by morphology and graphotactics

Morphology

shoot
chute
magician

First graders’ spellings of taps

[Bar chart showing proportion correct for different word types: Inflected, Derived, Single morpheme]
Graphotactics

Conventional English spelling
very few words like *llama* with initial consonant
doublet, many words like *pillow* and *ball*

First graders' classroom spellings
few like MMNE, more like SUPRMORRKIT and FASS

Experiments (e.g., Cassar & Treiman, 1997)
Which looks more like a word, *baff* or *bbaf*?

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Early “random letter” spellings are not purely random (Pollo, Kessler, & Treiman, 2009)

Frequency of individual letters
Frequency of letter pairs
Letters from own name
Letters in alphabetic sequence
Early “random” spellings of children exposed to
English differ in some ways from those of
children exposed to Portuguese

Statistical learning
Varied evidence
Naturalistic, unsystematic samples
More systematic sampling, in schools
Experiments to elicit spellings and other indications of children’s judgments

Toward conventional spelling

“We can at least respect [invented spelling] and attempt to work with it, if only intuitively. A child who wants to spell ‘truck’ with a CH will not be enlightened by being told that ch spells ‘chuh,’ as in chicken. [She] already knows that.”

Read, 1975, p. 77

Carol Chomsky, with a child who wants to spell karate

“What comes first?”
A [ka]. (He picked a C out of a pile.)
“Then what?”
[karr] R! (He found an R.)
“Then what?”
[karōo…] (He picked an I.)
“He got stuck, so I pronounced the word slowly for him … He picked the T ….”
Thank you!

Carol Chomsky
Wayne O'Neil
Israel Scheffler
Brett Kessler
Tatiana Pollo
Marie Cassar
Andrea Zukowski