Crowdsourcing dialectology in the undergraduate classroom

Laurel MacKenzie • George Bailey • Danielle Turton
University of Manchester

Methods in Dialectology XV • University of Groningen
12 August 2014
‘Collaborative language research’

‘large lower-level undergraduate classes work collaboratively to collect and analyze primary linguistic data’ (Van Herk 2008:222)

• Benefits to the student (numerous, well-attested)
• Benefits to the field
  – Novel methodology
  – Novel findings
• Benefits to the community
  – Outreach initiatives
Background
The class

• Language Variation & Change at the University of Manchester
  – an introduction to quantitative variationist sociolinguistics

• approx. 120 undergraduate students

• most in their 2\textsuperscript{nd} year of a Linguistics or English Language degree

• all have had Introductory Sociolinguistics
The assignment

• Survey-based examination of regional dialect differences in UK English
• Each student required to administer the survey to 10 native speakers of English who spent at least their childhood (ages 4–13) in the United Kingdom
We are studying the ways in which the English language varies throughout the United Kingdom and would like to learn about how you use particular words. Your participation in this survey is voluntary and your responses will be kept anonymous. Thank you for your participation!

Name: __________________  Sex: ___  Ethnicity: __________  Age: ___

What town(s)/village(s) were you raised in between the ages of 4 and 13?

__________________________________________

What is the postcode for the area in which you lived for the longest time growing up? Only the first half of the postcode is needed. __________________________

I. Please put an “X” next to all answers that apply. If there is one you’ve used much more than the others, select only that one. If you select “other”, write in your answer.

1. What would you call the soft, round bread in picture (a)?
   barm  ____  bap  ____  muffin  ____  cob  ____  roll  ____
   batch  ____  bun  ____  tea cake  ____
   other  ____________

2. What would you call the item of footwear in picture (b)?
   plimsolls  ____  daps  ____  pumps  ____
   other  ____________

3. What would you call the item of clothing in picture (c)?
   pants  ____  trousers  ____  other  ____________

4. What do you call the evening meal?
   dinner  ____  supper  ____  tea  ____  other  ____________

5. How would you address a group of two or more people?
   you  ____  you guys  ____  yous  ____  you lot  ____  other  ____________

II. Do the following pairs of words rhyme? Circle one option.

1. foot  ___  strut  RHYME  DON'T RHYME
2. for  ___  more  RHYME  DON'T RHYME
3. one  ___  gone  RHYME  DON'T RHYME
4. book  ___  spook  RHYME  DON'T RHYME
5. fur  ___  bear  RHYME  DON'T RHYME

III. Do the following pairs of words sound the same or different? Circle one option.

1. fool  ___  full  SAME  DIFFERENT
2. full  ___  fall  SAME  DIFFERENT
3. fool  ___  fall  SAME  DIFFERENT
4. pour  ___  poor  SAME  DIFFERENT
5. eight  ___  ate  SAME  DIFFERENT
6. Bangor  ___  banger  SAME  DIFFERENT
7. mute  ___  moot  SAME  DIFFERENT
8. spa  ___  Spar  SAME  DIFFERENT

IV. Would people in your area use these sentences? Pick a letter for each example (write in who might say it if you pick "c").

1. Jack said, ‘Give it me’.
   a: I’d say this myself.  
   b: I wouldn’t use it, but people from my area do.
   c: I’ve heard some people use this form. (What kind of people? ____________)
   d: A speaker of English might say this, but I haven’t really heard it.
   e: No native speaker of English would say this.

2. Sue said, ‘I done it’.
   a: I’d say this myself.  
   b: I wouldn’t use it, but people from my area do.
   c: I’ve heard some people use this form. (What kind of people? ____________)
   d: A speaker of English might say this, but I haven’t really heard it.
   e: No native speaker of English would say this.

3. Tom said, ‘Look at them animals’.
   a: I’d say this myself.  
   b: I wouldn’t use it, but people from my area do.
   c: I’ve heard some people use this form. (What kind of people? ____________)
   d: A speaker of English might say this, but I haven’t really heard it.
   e: No native speaker of English would say this.

   a: I’d say this myself.  
   b: I wouldn’t use it, but people from my area do.
   c: I’ve heard some people use this form. (What kind of people? ____________)
   d: A speaker of English might say this, but I haven’t really heard it.
   e: No native speaker of English would say this.
We are studying the ways in which the English language varies throughout the United Kingdom and would like to learn about how you use particular words. Your participation in this survey is voluntary and your responses will be kept anonymous. Thank you for your participation!

Name: __________________  Sex: ___  Ethnicity: ________  Age: ____

What town(s)/village(s) were you raised in between the ages of 4 and 13?

What is the postcode for the area in which you lived for the longest time growing up? Only the first half of the postcode is needed.

I. Please put an “X” next to all answers that apply. If there is one you’ve used much more than the others, select only that one. If you select “other”, write in your answer.

1. What would you call the soft, round bread in picture (a)?
   - barm
   - bap
   - muffin
   - cob
   - roll
   - batch
   - bun
   - tea cake
   - other ___________________

2. What would you call the item of footwear in picture (b)?
   - plimsolls
   - daps
   - pumps
   - other ___________________

3. What would you call the item of clothing in picture (c)?
   - pants
   - trousers
   - other ___________________

4. What do you call the evening meal?
   - dinner
   - supper
   - tea
   - other ___________________

5. How would you address a group of two or more people?
   - you
   - you guys
   - yous
   - you lot
   - other ___________________

II. Do the following pairs of words rhyme? Circle one option.

1. foot
   - strut
   - RHYME
   - DON’T RHYME

2. for
   - more
   - RHYME
   - DON’T RHYME

3. one
   - gone
   - RHYME
   - DON’T RHYME

4. book
   - spook
   - RHYME
   - DON’T RHYME

5. fur
   - bear
   - RHYME
   - DON’T RHYME

III. Do the following pairs of words sound the same or different? Circle one option.

1. fool
   - full
   - SAME
   - DIFFERENT

2. full
   - fall
   - SAME
   - DIFFERENT

3. fool
   - fall
   - SAME
   - DIFFERENT

4. pour
   - poor
   - SAME
   - DIFFERENT

5. eight
   - ate
   - SAME
   - DIFFERENT

6. Bangor
   - banger
   - SAME
   - DIFFERENT

7. mute
   - moot
   - SAME
   - DIFFERENT

8. spa
   - Spar
   - SAME
   - DIFFERENT

IV. Would people in your area use these sentences? Pick a letter for each example (write in who might say it if you pick “c”).

1. Jack said, ‘Give it me’.
   a: I’d say this myself.
   b: I wouldn’t use it, but people from my area do.
   c: I’ve heard some people use this form. (What kind of people? ____________)
   d: A speaker of English might say this, but I haven’t really heard it.
   e: No native speaker of English would say this.

2. Sue said, ‘I done it’.
   a: I’d say this myself.
   b: I wouldn’t use it, but people from my area do.
   c: I’ve heard some people use this form. (What kind of people? ____________)
   d: A speaker of English might say this, but I haven’t really heard it.
   e: No native speaker of English would say this.

3. Tom said, ‘Look at them animals’.
   a: I’d say this myself.
   b: I wouldn’t use it, but people from my area do.
   c: I’ve heard some people use this form. (What kind of people? ____________)
   d: A speaker of English might say this, but I haven’t really heard it.
   e: No native speaker of English would say this.

   a: I’d say this myself.
   b: I wouldn’t use it, but people from my area do.
   c: I’ve heard some people use this form. (What kind of people? ____________)
   d: A speaker of English might say this, but I haven’t really heard it.
   e: No native speaker of English would say this.
We are studying the ways in which the English language varies throughout the United Kingdom and would like to learn about how you use particular words. Your participation in this survey is voluntary and your responses will be kept anonymous. Thank you for your participation!

Name: __________________  Sex: ___  Ethnicity: ________  Age: ____

What town(s)/village(s) were you raised in between the ages of 4 and 13? ____________________________________________

What is the postcode for the area in which you lived for the longest time growing up? __________________________

I. Please put an “X” next to all answers that apply. If there is one you’ve used much more than the others, select only that one. If you select “other”, write in your answer.

1. What would you call the soft, round bread in picture (a)?
   - barm __
   - bap __
   - muffin __
   - cob __
   - roll __
   - batch __
   - bun __
   - tea cake __
   - other ______________

2. What would you call the item of footwear in picture (b)?
   - plimsolls ___
   - daps ___
   - pumps ___
   - other ______________

3. What would you call the item of clothing in picture (c)?
   - pants ____
   - trousers ____
   - other _____________

4. What do you call the evening meal?
   - dinner ___
   - supper ___
   - tea ___
   - other ______________

5. How would you address a group of two or more people?
   - you ___
   - you guys ___
   - yous ___
   - you lot ___
   - other ______________

6. Do the following pairs of words rhyme? Circle one option.
   - foot __ strut __ RHYME
   - for ___ more ___ RHYME
   - one ___ gone ___ RHYME
   - book ___ spook ___ RHYME
   - fur ___ bear ___ RHYME

7. Do the following pairs of words sound the same or different? Circle one option.
   - fool ___ full ___ SAME
   - full ___ fall ___ SAME
   - fool ___ fall ___ SAME
   - pour ___ poor ___ SAME
   - eight ___ ate ___ SAME
   - Bangor ___ banger ___ SAME
   - mute ___ moot ___ SAME
   - spa ___ Spar ___ SAME

8. Would people in your area use these sentences? Pick a letter for each example (write in who might say it if you pick “c”).
   - 1. Jack said, ‘Give it me’.
     - a: I’d say this myself.
     - b: I wouldn’t use it, but people from my area do.
     - c: I’ve heard some people use this form. (What kind of people? ____________)
     - d: A speaker of English might say this, but I haven’t really heard it.
     - e: No native speaker of English would say this.
   - 2. Sue said, ‘I done it’.
     - a: I’d say this myself.
     - b: I wouldn’t use it, but people from my area do.
     - c: I’ve heard some people use this form. (What kind of people? ____________)
     - d: A speaker of English might say this, but I haven’t really heard it.
     - e: No native speaker of English would say this.
   - 3. Tom said, ‘Look at them animals’.
     - a: I’d say this myself.
     - b: I wouldn’t use it, but people from my area do.
     - c: I’ve heard some people use this form. (What kind of people? ____________)
     - d: A speaker of English might say this, but I haven’t really heard it.
     - e: No native speaker of English would say this.
   - 4. Sarah said, ‘That’s the dress what I bought’.
     - a: I’d say this myself.
     - b: I wouldn’t use it, but people from my area do.
     - c: I’ve heard some people use this form. (What kind of people? ____________)
     - d: A speaker of English might say this, but I haven’t really heard it.
     - e: No native speaker of English would say this.
We are studying the ways in which the English language varies throughout the United Kingdom and would like to learn about how you use particular words. Your participation in this survey is voluntary and your responses will be kept anonymous.

Thank you for your participation!

Name: __________________  Sex: ___  Ethnicity: ________  Age: ____

What town(s)/village(s) were you raised in between the ages of 4 and 13?
_________________________________________  __________________

What is the postcode for the area in which you lived for the longest time growing up?
_________________________

I. Please put an “X” next to all answers that apply. If there is one you’ve used much more than the others, select only that one. If you select “other”, write in your answer.

1. What would you call the soft, round bread in picture (a)?
   - barm __  bap __  muffin __  cob __  roll __  batch __  bun __  tea cake __  other ___________

2. What would you call the item of footwear in picture (b)?
   - plimsolls ___  daps ___  pumps ___  other ___________

III. Do the following pairs of words sound the same or different? Circle one option.

1. pour poor
   - SAME
   - DIFFERENT

2. eight ate
   - SAME
   - DIFFERENT

II. Do the following pairs of words rhyme? Circle one option.

1. foot strut
   - RHYME
   - DON’T RHYME

2. for more
   - RHYME
   - DON’T RHYME

3. fool fall
   - SAME
   - DIFFERENT

4. pour poor
   - SAME
   - DIFFERENT

5. How would you address a group of two or more people?
   - you ___  you guys ___  yous ___  you lot ___  other ___________

6. Jack said, ‘Give it me’.
   - a: I’d say this myself.
   - b: I wouldn’t use it, but people from my area do.
   - c: I’ve heard some people use this form. (What kind of people? ____________)
   - d: A speaker of English might say this, but I haven’t really heard it.
   - e: No native speaker of English would say this.

7. Sue said, ‘I done it’.
   - a: I’d say this myself.
   - b: I wouldn’t use it, but people from my area do.
   - c: I’ve heard some people use this form. (What kind of people? ____________)
   - d: A speaker of English might say this, but I haven’t really heard it.
   - e: No native speaker of English would say this.

8. Tom said, ‘Look at them animals’.
   - a: I’d say this myself.
   - b: I wouldn’t use it, but people from my area do.
   - c: I’ve heard some people use this form. (What kind of people? ____________)
   - d: A speaker of English might say this, but I haven’t really heard it.
   - e: No native speaker of English would say this.

   - a: I’d say this myself.
   - b: I wouldn’t use it, but people from my area do.
   - c: I’ve heard some people use this form. (What kind of people? ____________)
   - d: A speaker of English might say this, but I haven’t really heard it.
   - e: No native speaker of English would say this.
We are studying the ways in which the English language varies throughout the United Kingdom and would like to learn about how you use particular words. Your participation in this survey is voluntary and your responses will be kept anonymous. Thank you for your participation!

Name: __________________  Sex: ___  Ethnicity: ________  Age: ____

What town(s)/village(s) were you raised in between the ages of 4 and 13?
_________________________________________  __________________

What is the postcode for the area in which you lived for the longest time growing up?
_________________________

I. Please put an “X” next to all answers that apply. If there is one you’ve used much more than the others, select only that one. If you select “other”, write in your answer.

1. What would you call the soft, round bread in picture (a)?
   barm  bap  muffin  cob  roll  batch  bun  tea cake  other

2. What would you call the item of footwear in picture (b)?
   plimsolls  daps  pumps  other

3. What would you call the item of clothing in picture (c)?
   pants  trousers  other

4. What do you call the evening meal?
   dinner  supper  tea  other

5. How would you address a group of two or more people?
   you  you guys  yous  you lot  other

IV. Would people in your area use these sentences? Pick a letter for each example (write in who might say it if you pick "c").

1. Jack said, ‘Give it me’.
   a: I'd say this myself.  b: I wouldn't use it, but people from my area do.  c: I've heard some people use this form. (What kind of people? __________________)  d: A speaker of English might say this, but I haven't really heard it.  e: No native speaker of English would say this.

2. Sue said, ‘I done it’.
   a: I'd say this myself.  b: I wouldn't use it, but people from my area do.  c: I've heard some people use this form. (What kind of people? __________________)  d: A speaker of English might say this, but I haven't really heard it.  e: No native speaker of English would say this.

3. Tom said, ‘Look at them animals’.
   a: I'd say this myself.  b: I wouldn't use it, but people from my area do.  c: I've heard some people use this form. (What kind of people? __________________)  d: A speaker of English might say this, but I haven't really heard it.  e: No native speaker of English would say this.

   a: I'd say this myself.  b: I wouldn't use it, but people from my area do.  c: I've heard some people use this form. (What kind of people? __________________)  d: A speaker of English might say this, but I haven't really heard it.  e: No native speaker of English would say this.

II. Do the following pairs of words rhyme? Circle one option.

1. foot  strut  RHYME  DON'T RHYME
2. for  more  RHYME  DON'T RHYME
3. one  gone  RHYME  DON'T RHYME
4. book  spook  RHYME  DON'T RHYME
5. fur  bear  RHYME  DON'T RHYME

III. Do the following pairs of words sound the same or different? Circle one option.

1. fool  full  SAME  DIFFERENT
2. full  fall  SAME  DIFFERENT
3. fool  fall  SAME  DIFFERENT
4. pour  poor  SAME  DIFFERENT
5. eight  ate  SAME  DIFFERENT
6. Bangor  banger  SAME  DIFFERENT
7. mute  moot  SAME  DIFFERENT
8. spa  Spar  SAME  DIFFERENT

IV. Would people in your area use these sentences? Pick a letter for each example (write in who might say it if you pick "c").

1. Jack said, ‘Give it me’.
   a: I'd say this myself.  b: I wouldn't use it, but people from my area do.  c: I've heard some people use this form. (What kind of people? __________________)  d: A speaker of English might say this, but I haven't really heard it.  e: No native speaker of English would say this.

2. Sue said, 'I done it'.
   a: I'd say this myself.  b: I wouldn't use it, but people from my area do.  c: I've heard some people use this form. (What kind of people? __________________)  d: A speaker of English might say this, but I haven't really heard it.  e: No native speaker of English would say this.

3. Tom said, 'Look at them animals'.
   a: I'd say this myself.  b: I wouldn't use it, but people from my area do.  c: I've heard some people use this form. (What kind of people? __________________)  d: A speaker of English might say this, but I haven't really heard it.  e: No native speaker of English would say this.

4. Sarah said, 'That’s the dress what I bought'.
   a: I'd say this myself.  b: I wouldn't use it, but people from my area do.  c: I've heard some people use this form. (What kind of people? __________________)  d: A speaker of English might say this, but I haven't really heard it.  e: No native speaker of English would say this.
>1000 data points per year
### Sex

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>55%</td>
<td>45%</td>
</tr>
</tbody>
</table>

### Age

<table>
<thead>
<tr>
<th></th>
<th>&lt;20</th>
<th>21–40</th>
<th>41–60</th>
<th>&gt;60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>48%</td>
<td>34%</td>
<td>14%</td>
<td>3%</td>
</tr>
</tbody>
</table>

### Region

<table>
<thead>
<tr>
<th></th>
<th>North</th>
<th>South</th>
<th>Midlands</th>
<th>Non-England UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>53%</td>
<td>23%</td>
<td>18%</td>
<td>6%</td>
</tr>
</tbody>
</table>
The assignment

• Compiled data is distributed to students
• Students analyse and map a variable of interest using a simplified version of Google’s mapping software
Novel methodology
Google Maps & Fusion Tables

• Google Fusion Tables - an experimental ‘Research at Google’ app
• Tools to upload, share and query large data sets
• Data visualisation
• Works in tandem with Google Spreadsheets
<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Response ID</td>
<td>Year</td>
<td>Sex</td>
<td>Ethnicity</td>
<td>Age</td>
<td>Age Group</td>
<td>Town</td>
<td>Postcode</td>
<td>Region</td>
<td>Latitude</td>
<td>Longitude</td>
<td>Footwear</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>24</td>
<td>21-40</td>
<td>Totnes</td>
<td>TQ9</td>
<td>South West</td>
<td>50.31100886</td>
<td>-3.6641202</td>
<td>Pumps</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>22</td>
<td>21-40</td>
<td>East Allington</td>
<td>TQ9</td>
<td>South West</td>
<td>50.33001238</td>
<td>-3.8038416</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>16</td>
<td>1-20</td>
<td>Kingsbridge</td>
<td>TQ6</td>
<td>South West</td>
<td>50.343918</td>
<td>-3.609804</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>49</td>
<td>41-60</td>
<td>Dawlish</td>
<td>TQ1</td>
<td>South West</td>
<td>50.475881</td>
<td>-3.523371</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Bodmin, Wadbridge</td>
<td>PL27</td>
<td>South West</td>
<td>50.504294</td>
<td>-4.889476</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>62</td>
<td>61-80</td>
<td>Weymouth, Dorset</td>
<td>DT4</td>
<td>South West</td>
<td>50.606441</td>
<td>-2.476438</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>36</td>
<td>21-40</td>
<td>Exeter</td>
<td>EX2</td>
<td>South West</td>
<td>50.698644</td>
<td>-3.533069</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Poole, Dorset</td>
<td>BH13</td>
<td>South West</td>
<td>50.707699</td>
<td>-1.921645</td>
<td>Pumps</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>75</td>
<td>61-80</td>
<td>Exeter</td>
<td>EX1</td>
<td>South West</td>
<td>50.728865</td>
<td>-3.478671</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>20</td>
<td>1-20</td>
<td>Exeter</td>
<td>EX4</td>
<td>South West</td>
<td>50.737827</td>
<td>-3.611653</td>
<td>Pumps</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Worthing</td>
<td>BN14</td>
<td>South East</td>
<td>50.85544</td>
<td>-0.3786</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>49</td>
<td>41-60</td>
<td>Brighton</td>
<td>BN1</td>
<td>South East</td>
<td>50.87679</td>
<td>-0.12689</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Isle of Wight</td>
<td>PO1</td>
<td>South East</td>
<td>50.79707946</td>
<td>-1.1728276</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>22</td>
<td>21-40</td>
<td>Worthing</td>
<td>BN14</td>
<td>South East</td>
<td>50.85542</td>
<td>-0.3766</td>
<td>Plimsolls</td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Brighton</td>
<td>BN1</td>
<td>South East</td>
<td>50.87679</td>
<td>-0.12529</td>
<td>Pumps</td>
</tr>
</tbody>
</table>
## Fusion Table – Data View

<table>
<thead>
<tr>
<th>Response ID</th>
<th>Year</th>
<th>Sex</th>
<th>Ethnicity</th>
<th>Age</th>
<th>Age Group</th>
<th>Town</th>
<th>Postcode</th>
<th>Region</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>24</td>
<td>21-40</td>
<td>Totnes</td>
<td>TQ9</td>
<td>South West</td>
<td>50.31100886</td>
<td>-3.664120283</td>
</tr>
<tr>
<td>2</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>22</td>
<td>21-40</td>
<td>East Allington</td>
<td>TQ9</td>
<td>South West</td>
<td>50.33001238</td>
<td>-3.803841696</td>
</tr>
<tr>
<td>3</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>16</td>
<td>1-20</td>
<td>Kingsbridge</td>
<td>TQ6</td>
<td>South West</td>
<td>50.343918</td>
<td>-3.609804</td>
</tr>
<tr>
<td>5</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>49</td>
<td>41-60</td>
<td>Dawlish</td>
<td>TQ1</td>
<td>South West</td>
<td>50.475881</td>
<td>-3.523371</td>
</tr>
<tr>
<td>6</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Bodmin, Wadbridge</td>
<td>PL27</td>
<td>South West</td>
<td>50.504294</td>
<td>-4.889476</td>
</tr>
<tr>
<td>7</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>62</td>
<td>61-80</td>
<td>Weymouth, Dorset</td>
<td>DT4</td>
<td>South West</td>
<td>50.606441</td>
<td>-2.476438</td>
</tr>
<tr>
<td>8</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>36</td>
<td>21-40</td>
<td>Exeter</td>
<td>EX2</td>
<td>South West</td>
<td>50.698644</td>
<td>-3.533069</td>
</tr>
<tr>
<td>9</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Poole, Dorset</td>
<td>BH13</td>
<td>South West</td>
<td>50.707699</td>
<td>-1.921645</td>
</tr>
<tr>
<td>10</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>75</td>
<td>61-80</td>
<td>Exeter</td>
<td>EX1</td>
<td>South West</td>
<td>50.728865</td>
<td>-3.478671</td>
</tr>
<tr>
<td>11</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>20</td>
<td>1-20</td>
<td>Exeter</td>
<td>EX4</td>
<td>South West</td>
<td>50.737827</td>
<td>-3.611653</td>
</tr>
<tr>
<td>13</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Worthing</td>
<td>BN14</td>
<td>South East</td>
<td>50.85544</td>
<td>-0.3786</td>
</tr>
<tr>
<td>14</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>49</td>
<td>41-60</td>
<td>Brighton</td>
<td>BN1</td>
<td>South East</td>
<td>50.87679</td>
<td>-0.12689</td>
</tr>
<tr>
<td>15</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Isle of Wight</td>
<td>PO1</td>
<td>South East</td>
<td>50.79707946</td>
<td>-1.172827612</td>
</tr>
<tr>
<td>16</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>22</td>
<td>21-40</td>
<td>Worthing</td>
<td>BN14</td>
<td>South East</td>
<td>50.85542</td>
<td>-0.3766</td>
</tr>
<tr>
<td>17</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>21</td>
<td>21-40</td>
<td>Brighton</td>
<td>BN1</td>
<td>South East</td>
<td>50.87679</td>
<td>-0.12529</td>
</tr>
<tr>
<td>18</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>19</td>
<td>1-20</td>
<td>Christchurch</td>
<td>BH23</td>
<td>South West</td>
<td>50.8196174</td>
<td>-1.810375941</td>
</tr>
<tr>
<td>19</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>19</td>
<td>1-20</td>
<td>Portsmouth</td>
<td>PO1</td>
<td>South East</td>
<td>50.82690078</td>
<td>-1.032303243</td>
</tr>
<tr>
<td>ID</td>
<td>Response ID</td>
<td>Year</td>
<td>Sex</td>
<td>Ethnicity</td>
<td>Age</td>
<td>Age Group</td>
<td>Town</td>
<td>Postcode</td>
<td>Region</td>
<td>Latitude</td>
</tr>
<tr>
<td>-----</td>
<td>-------------</td>
<td>------</td>
<td>-----</td>
<td>-----------</td>
<td>-----</td>
<td>-----------</td>
<td>--------------</td>
<td>----------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>24</td>
<td>21-40</td>
<td>Totnes</td>
<td>TQ9</td>
<td>South West</td>
<td>50.31100886</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td>22</td>
<td>21-40</td>
<td>East Allington</td>
<td>TQ9</td>
<td>South West</td>
<td>50.33001238</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>16</td>
<td>1-20</td>
<td>Kingsbridge</td>
<td>TQ6</td>
<td>South West</td>
<td>50.343918</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td>49</td>
<td>41-60</td>
<td>Dawlish</td>
<td>TQ1</td>
<td>South West</td>
<td>50.475881</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>2013</td>
<td>f</td>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>2013</td>
<td>m</td>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fusion Table – Map View
Geocoding

• Process of converting location data to absolute coordinates
• Powered by Google Maps
• 2,659 data points spread across 1,078 different postcode regions throughout UK
Geocoding – Duplicate Problem

• Duplicate postcodes return identical co-ordinates
• When plotted, this results in loss of data

<table>
<thead>
<tr>
<th>Postcode</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB3</td>
<td>53.68986</td>
<td>-2.467863</td>
</tr>
<tr>
<td>M14</td>
<td>53.450878</td>
<td>-2.229436</td>
</tr>
<tr>
<td>CH2</td>
<td>53.23831</td>
<td>-2.834329</td>
</tr>
<tr>
<td>M14</td>
<td>53.450878</td>
<td>-2.229436</td>
</tr>
<tr>
<td>M14</td>
<td>53.450878</td>
<td>-2.229436</td>
</tr>
<tr>
<td>YO7</td>
<td>54.230078</td>
<td>-1.336892</td>
</tr>
<tr>
<td>BL2</td>
<td>53.593819</td>
<td>-2.393024</td>
</tr>
</tbody>
</table>

• Most extreme case – M14
  – Close to the University of Manchester campus
  – 32 respondents from this region
Geocoding – Duplicate Solution

• Generate a small, random number to add to or subtract from the original coordinates
• Sprays out these stacked points into a cluster of points across a small geographic area

± random
Adapted Coordinates
Map Features

• Colour-coded points based on variant choice
• Mouse-over box with demographic information
Map Features

• Filters can also be applied to the data
  – Investigate possible stratification by various independent variables and demographic factors

All females
Map Features

• Filters can also be applied to the data
  – Investigate possible stratification by various independent variables and demographic factors

Everyone under the age of 20
Map Features

• Filters can also be applied to the data
  – Investigate possible stratification by various independent variables and demographic factors

Just the North West
Novel findings
North/South divide

boundary formed by coincidence of two major isoglosses

FOOT/STRUT split

TRAP/BATH split

(Hughes, Trudgill & Watt 2012:71)
North/South divide

Can we identify the boundary between the two?
Wells (1982):
II.3 Do the words *one* and *gone* rhyme?

**Rhyme**

**Don’t rhyme**
II.1 Do the words *foot* and *strut* rhyme?
North/South divide

Is a divide evident with non-phonological variables?

(Hughes, Trudgill & Watt 2012:71)
IV.1 Could you say *Give it me*?
I.4 What do you call the evening meal?

- tea
- dinner
I.5 How would you address a group of two or more people?
Community outreach
Online ‘dialect atlas’

http://tiny.cc/UKdialectmaps
Aye up! How we're all speaking like southerners now: Regional divisions in language being worn away

- Linguistics researchers at Manchester University surveyed 1,400 people
- Participants shown everyday objects and asked what they call them
- Pronunciation is also becoming more southern
North-South language divide to disappear?

Research by language experts has found that the distinct differences in pronunciation between Northerners and Southerners are slowly disappearing as they suggest Southern language is 'creeping upwards'
Thank you!

http://tiny.cc/UKdialectmaps

With particular thanks to:

Yaron Matras & Multilingual Manchester for web hosting
Bill Labov & Gillian Sankoff for inspiration
Chris Montgomery for helpful discussion

LELA20071/2’s student researchers:
