The Dynamics of Citizen Science in Exploring Language Diversity

Bente Ailin Svendsen
The objective of this talk is to explore the dynamics of citizen science (CS) in sociolinguistics, i.e. the involvement of non-professionals in doing sociolinguistic research, coined as *Citizen Sociolinguistics* (Rymes and Leone 2014, Svendsen, pending for review).
CS involves in one way or another, the engagement of non-professionals in authentic scientific research (Dickinson et al. 2012: 291).
Citizen science

- Long tradition in natural science research

- **Fred Urquhart (1911-2002) & Norah Roden Urquhart (1918-2009)** recruited hundreds of volunteers - "citizen scientists" who helped in their research on the migration routes of monarch butterflies by tagging butterflies and reporting findings and sightings.

- The primary impacts of citizen science are seen in biological studies of global climate change – biological changes in natural habitats.
Citizen Science is gaining momentum

Work Program of ‘Science with and for Society’ (SwafS) 2018-2020, Part V of Horizon 2020:

CS is one of four strategic lines of action (‘Exploring and supporting citizen science’), and citizen science was, recently, recognized as an open science priority by the European Council.
Citizen Sociolinguistics (Rymes and Leone 2014)

a ‘new sociolinguistic methodology that accounts for and partakes of the social demands and affordances of massive mobility and connectivity in today‘s world.’

citizen sociolinguists’ as ‘people who use their senses and intelligence to understand the world around them. Citizen sociolinguistics, then, is the study of these understandings’

CS and folk linguistics

the term ‘citizen scientists’ or ‘citizen sociolinguists’ is conceived as ‘non-professionals’ or ‘laypeople’ who have no formal and lengthy sociolinguistic training and who are involved in doing scientific research. (Svendsen, under review)
Crowdsourcing big sociolinguistic data

Leemann, Kolly, Purves, Britain Glaser’s (2016) – Smartphone app, dialect data

They argue that crowdsourcing techniques using apps have the potential to ‘complement existing data collection techniques and to provide evidence that traditional methods cannot, with normal resources, hope to gather’ (Leeman et al. 2016: 1).
Take-home message

1. Methodological: To advocate the use of citizen science (CS) as a tool for sociolinguistic research and public engagement
2. Empirical/theoretical: To encourage an increased use of the pupils’ multiple language resources by revealing the linguistic diversity among pupils versus the linguistic homogeneity in reported language use in the classroom (i.e. student-teacher interaction)
Taking the temperature on language!

National research campaign in 2014 where we invited students in all grades in Norway to be language researchers
The campaign is held annually and organized by the Research Council of Norway (RCN) and the Center for Science Education at the University of Bergen, in collaboration with a research unit. In 2014, MultiLing Center for Multilingualism in Society across the Lifespan (CoE) gained the responsibility for the campaign, led by Bente Ailin Svendsen, in close collaboration with Else Ryen and Kristin Vold Lexander.
In the course of the campaign, students from all over the country explored their own and others’ language and dialect competence and language use in various contexts and collected popular words and phrases – registered the data in a digital database [www.miljolare.no](http://www.miljolare.no)
Why CS as a sociolinguistic tool in Norway?

No large-scale census data on language competence and use

Immense linguistic diversity – we need to learn more about *de facto* language vitality

Two official languages: Norwegian (Bokmål and Nynorsk) and Sami, five Sami languages (North Sami, Lule Sami, Pite Sami, Ume Sami, South Sami), many dialects (4 main groups), Norwegian Sign Language, Kven, Romani, Romanes, more recent minority languages (200+ languages: Poland, Pakistan largest groups), and English is known and used by almost the entire population.
### Participants per Grade

87 schools, 4509 students  
(50% girls, 50% boys)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd grade and younger</td>
<td>0.9%</td>
<td>39</td>
</tr>
<tr>
<td>3rd grade</td>
<td>1.5%</td>
<td>68</td>
</tr>
<tr>
<td>4th grade</td>
<td>5.0%</td>
<td>224</td>
</tr>
<tr>
<td>5th grade</td>
<td>10.5%</td>
<td>472</td>
</tr>
<tr>
<td>6th grade</td>
<td>13.5%</td>
<td>610</td>
</tr>
<tr>
<td>7th grade</td>
<td>12.1%</td>
<td>546</td>
</tr>
<tr>
<td>8th grade</td>
<td>16.3%</td>
<td>734</td>
</tr>
<tr>
<td>9th grade</td>
<td>16.6%</td>
<td>748</td>
</tr>
<tr>
<td>10th grade</td>
<td>14.6%</td>
<td>660</td>
</tr>
<tr>
<td>1st year Upper Secondary</td>
<td>3.7%</td>
<td>166</td>
</tr>
<tr>
<td>2nd year Upper Secondary</td>
<td>2.3%</td>
<td>102</td>
</tr>
<tr>
<td>3rd year Upper Secondary</td>
<td>1.7%</td>
<td>78</td>
</tr>
<tr>
<td>Older</td>
<td>1.4%</td>
<td>62</td>
</tr>
</tbody>
</table>
177 – the number of dialects children and youths report they know (entire country)

95 – the number of languages the students report they speak (entire country)

13 – the number of languages in addition to Norwegian spoken by 8th grade students at Sandgotna school in Bergen
HOW MANY LANGUAGES DO YOU SPEAK?
(Do not be too critical when assessing your skills)

1
- 3% (74)

2
- 24% (523)

3
- 36% (794)

4
- 19% (417)

5
- 9% (208)

Other
- 8% (179)
LEARNING LANGUAGES

- Want to learn more languages: 78%
- Want to improve skills in a language: 72%
- Improve skills in a language: 84%

WANT TO LEARN MORE LANGUAGES?

<table>
<thead>
<tr>
<th>Level</th>
<th>Primary School</th>
<th>Secondary School</th>
<th>Upper Secondary School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Want to Learn</td>
<td>84%</td>
<td>56%</td>
<td>42%</td>
</tr>
<tr>
<td>More Languages</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WANT TO IMPROVE SKILLS IN A LANGUAGE?

<table>
<thead>
<tr>
<th>Level</th>
<th>Primary School</th>
<th>Secondary School</th>
<th>Upper Secondary School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Skills</td>
<td>78%</td>
<td>77%</td>
<td>80%</td>
</tr>
</tbody>
</table>
WHY DO YOU WANT TO LEARN THIS / THESE LANGUAGES?

It is useful when travelling / I want to travel to where they speak these languages 64 % (1014)
It’s fun to learn languages 57 % (902)
It becomes easier to communicate with others 55 % (873)
It’s (a) nice language (s) 48 % (757)
It’s useful for work and education 38 % (610)
It gives access to more knowledge 33 % (532)
Many speak it 29 % (461)
To speak with family abroad 14 % (230)
Don’t know 11 % (177)
Other 7 % (110)
66% think it’s “very good” or “good” that we use English words in Norwegian.

70% use English every day

70% use English when they speak or write: (73% girls and 67% boys)

38% use English when they play computer games

67% use English in chats

78% use English in conversations with friends

60% use English in text messages
THE TWELVE MOST CITED WORDS ADULTS DON'T KNOW ARE:

1. **Lol** (‘laughing out loud’)

2. **Yolo** (‘you only live once’)

3. **Swag** (often used in the sense of ‘style’ or ‘behaviour’)

4. **Omg** (‘Oh my God’)

5. **Serr/serrøst** (words that are similar, meaning ‘seriously’)

6. **Chille/chille** (words that are similar, meaning ‘to chill’)

7. **Dd** (can have several meanings such as ‘double d’, ‘drug and disease free’)

8. **Ins** (‘ikke noe spesielt’, ‘nothing special’)

9. **Btw** (‘by the way’)

10. **Wtf** (‘what the fuck’)

11. **Brb** (‘be right back’)

12. **Dleg** (‘du lever én gang’, ‘you only live once’)

«I love slang!», boy 9th grade, Oslo
Languages in family interaction (excl. Norwegian – mother, father, other adults, brothers and sisters, N = students = 532, incl. Norwegian = 497 students)

«dummy» English 60, N = 273

Statistics B. Uri Jensen
# Student to teacher
(students who report the use of more than one language or dialect daily)

Languages mentioned

<table>
<thead>
<tr>
<th>Language</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norwegian</td>
<td>1143</td>
</tr>
<tr>
<td>English</td>
<td>202</td>
</tr>
<tr>
<td>Spanish</td>
<td>35</td>
</tr>
<tr>
<td>German</td>
<td>21</td>
</tr>
<tr>
<td>French</td>
<td>18</td>
</tr>
<tr>
<td>Swedish</td>
<td>4</td>
</tr>
<tr>
<td>Chinese</td>
<td>3</td>
</tr>
<tr>
<td>Urdu</td>
<td>3</td>
</tr>
<tr>
<td>&quot;Pakistani&quot;</td>
<td>2</td>
</tr>
<tr>
<td>Japanese</td>
<td>2</td>
</tr>
<tr>
<td>Baluchi</td>
<td>2</td>
</tr>
<tr>
<td>Arabic</td>
<td>2</td>
</tr>
<tr>
<td>Sami</td>
<td>1</td>
</tr>
<tr>
<td>Dutch</td>
<td>1</td>
</tr>
<tr>
<td>Danish</td>
<td>1</td>
</tr>
</tbody>
</table>

Statistics B. Uri Jensen
Teacher to student
(students who report the use of more than one language or dialect daily)

Languages mentioned

- Norwegian: 1130
- English: 198
- Spanish: 25
- German: 18
- French: 18
- Swedish: 3
- Sami: 1
- "Pakistani": 1
- "Kebab-Norwegian": 1
- Italian: 1
- Baluchi: 1
- Arabic: 1
- "Afghan": 1

Statistics: B. Uri Jensen
A mismatch between the linguistic diversity among the students and the homogenous language use in the classroom (i.e. in student-teacher interaction)

In alignment with other studies on the subject (e.g. Cummins 2008; Creese & Blackledge 2010; García & Li Wei 2014; Kulbrandstad et al. 2008)

Generated a new study in collaboration with the Language Council of Norway:

«Room for languages?»
School languages are taken home, but not vice versa

Rich potential to enhance the use of the pupils’ multiple linguistic resources
CS under fire – data from and by non-linguists

the ‘local-knowledge turn’ (Albury, in press)
“The children’s reports have provided us with more knowledge and a better understanding of multilingualism in schools and of its importance in society,” says Arvid Hallén, Former Director of the Research Council of Norway.
Linguistic stewardship

Potential to enhance metalinguistic awareness and encourage linguistic stewardship, that is planning and management of linguistic resources and language diversity – individual, family and societal level, in education in particular
Documentary by 1001 Films v/ Anwar Saab
References:


