Hearing silent voices: talk and silence as data in “Skills for Life” classrooms.

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Overview

New pedagogies in adult classrooms - generate new types of talk as data

Who participates in which types of talk?

Difficulties in “hearing” silences
- Anticipated
- Unanticipated

Metaphors for talk as data
Questions

How can we recognise silence as data?

How do we represent silences when reporting our research?
Adult literacy and numeracy learners: Silent voices

“Excluded voices”
Tett (2000)

“The voice of adult numeracy learners has been largely absent from debates about the nature of numeracy.”
Coben et al 2003

“A latent pedagogic voice of unrecognised potential.”
Bernstein 1999

“A culture of silence”
Freire 1972

Silence and Voice – metaphorical or literal?
(e.g. Grief and Howard 2005)
Collaborative groupwork

A new pedagogy for adult numeracy classrooms in England
Traditionally in adult numeracy classrooms...

Whole-class, teacher-led

Learners working individually

Or...
Now being replaced by collaborative groupwork
Now being replaced by collaborative groupwork

<table>
<thead>
<tr>
<th>What do we mean by collaborative groupwork?</th>
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<tbody>
<tr>
<td><strong>Vygotskian (socio-constructivist) principles</strong></td>
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About the research
Study to investigate...

...formal and informal knowledge which students bring to classroom...
Study to investigate...

...formal and informal knowledge which students bring to classroom...  

...Not participation and non-participation
Setting: The students, the teacher, and the classroom

Adult numeracy class

- Adult community education centre in north of England
- Free provision for adults without maths qualifications

11 students

- 5 working in “Level 2” group
- 3 working in “Level 1” group
- 3 with 1-to-1 support needs
Setting: The students, the teacher and the classroom

- Linda: Signer
- Richard: LSA
- Level 1 group
- Level 2 group
Data Collection

Audio-recording learners’ peer-peer discussions in classroom

- Small group/pair discussion during collaborative work
- Whole class discussion (including informal chat)

Microphones recorded...

Approximately 11 hours of useable audio data collected
Naturalistic data?

- Mobile phones as recording devices
- Labov (1972) Speakers’ discourse more natural when intensely engaged in subject
- Video rejected as too obtrusive
Naturalistic data?
Learners’ talk as data
Learners’ talk as data
Beyond mathematics:  
Peer discussion events

Analysis taking a social (rather than cognitive) perspective

Although neo-Vygotskian researchers often refer to their approach as ‘socio-cultural’… they do not seem to address the socio-cultural nature of language…events and practices in the classroom

• Maybin 2003:1
Beyond mathematics: 3 categories of peer discussion events
Beyond mathematics: 3 categories of peer discussion events

- Mathematical problem-solving
- Performed humour
- Peer support
Types of peer discussion event
Mathematical problem-solving

Learners construct understanding through exploratory talk
Vygotsky (1934), Barnes (2008), Mercer (1995)

Shared uncertainties
Acknowledge doubt
Elicit evaluation
“Shield” against vulnerability of wrong answer

Negotiation of boundaries between informal and mathematical registers
Types of peer discussion event
Mathematical problem-solving

The dairy presents the number of pints the milkman delivers each week in July on a graph.

What is wrong with this graph?
A. The axis labels are incorrect
B. There are data points missing
C. The title is incorrect
D. The vertical scale is incorrect

LSIS/Tribal 2008
Types of peer discussion event
Mathematical problem-solving

Extract 1: “The vertical scale is incorrect”
A group of learners are working on a problem from a National Test practice paper. Gemma quickly spots the error on the graph, but the learners have difficulty matching the error to appropriate mathematical terminology.

Gemma  What’s the axis?
Melissa  Um
Gemma  The numbers are – wrong
Melissa  Yeah
Gemma  They go up in twos, and then ones
  Jackie  Why, where’re you looking?
Gemma  Look [pointing]
  Jackie  Oh, right
Gemma  When it goes to there, it goes up
Melissa  [reading from multiple choice options] “The vertical scale is incorrect”
Gemma  I’ve put – yeah, that’s what I’ve put
   I don’t know
   It started off going 200, 200, 200
   It’s gone to 100, 100, 100
   (...) I think it’s the vertical scale
   I’m not sure
   I’ve put D anyway

Note that all names in all extracts included in this presentation are pseudonyms
Types of peer discussion event
Performed humour

- Crosses constraints of groups – performed for whole class
- Affiliative, self-deprecatory humour
- Enjoyable learning environment
- Light relief from stress of learning (c.f. Baynham 1996)
Types of peer discussion event

Performed humour

Extract 2: “Waist measurement”
The class is working in pairs or small groups on a worksheet which asks them to suggest the units they would use to make certain measurements. Abigail often seems to be self-conscious about her weight.

Abigail [loudly] You know waist measurement? Do I do that in feet?

Extract 3: “Dumb blonde”
Roz has made a mistake in her work which she considers to be stupid. The joke is not new but is given impact by the fact that Roz has very dark hair.

Roz [loudly] I’m having a dumb blonde moment

Extract 4: “It’s not a light sabre, you know”
The teacher has set out measuring instruments to enable learners to make more sense of metric units of length, mass and capacity. Donna is wielding a metre rule in a small and crowded classroom.

Donna [holding out a metre rule for everyone to see]
If you look, that’s wider than a washing machine

Judith Washing machine
Abigail Be careful with that, you
[laughter]
It’s not a light sabre, you know
[more laughter]
Types of peer discussion event

Peer Support

Acknowledging and accepting anxiety
Discovering that others feel it too

Self-deprecation – affiliative humour

“Space” to acknowledge painful issues
Unusually, Jackie has right answer; Dawn and Ruth are wrong
Types of peer discussion event
Peer Support

Extract 5: “I’m not often right and then you knock me down”

Jackie and Dawn are working on a word problem about diluting concentrated juice in the ratio 1:4. Jackie suggests that the juice will be stronger if it is mixed in the ratio 1:3. Dawn initially rejects this answer, but then readily admits her mistake.

Ruth: Yes, you’re right, three parts
Jackie: Three
Ruth: Three parts water instead of four parts
Jackie: Yeah, to make it a bit stronger
Dawn: Oh, right, yeah
     You was right
Jackie: You see I’m not often right and then you knock me down!

Other students: [Laughter]
Jackie: You know, sometimes I have to just… I clam up again then!

Other students: [Laughter]
Jackie: And I think, ooh
Dawn: You’ve not run off today, have you
Jackie: I’m going to go to t’toilet in a minute

Other students: [Laughter]
Jackie: It’s the shock

Other students: [Laughter]
Dawn: You get a weak bladder in maths, don’t you?

Other students: [Laughter]
Peer discussion as medium for acquiring social capital

“the networks, together with shared norms, values and social trust that facilitate co-ordination and co-operation for mutual benefit, within and between groups”

• (Tett and Maclachlan 2007)

Recognised as significant outcome of participation in adult literacy and numeracy education

• (e.g. Balatti et al 2006)
Learners’ silences as data
Learning to “hear” silence
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Learning to “hear” silence
### Types of peer discussion event: Who participated?

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## Types of peer discussion event: Who participated?

<table>
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<tr>
<th>Type of Discussion</th>
<th>Participation Patterns</th>
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| Mathematical problem-solving           | - Participation within groups  
                                        | - No participation by learners with support needs                                     |
| Performed humour                       | - Participation across groups  
                                        | - No participation by learners with support needs                                     |
| Peer support                           | - Participation within groups  
                                        | - No participation by learners with support needs                                     |
Hearing silences

Anticipated

Unanticipated
Hearing silences

- **Anticipated**
  - Non-participation in maths problem-solving events
  - Deaf student
  - Opportunities to collect alternative forms of data
    - e.g. Arranged interview with deaf student and signer

- **Unanticipated**
  - Non-participation in humorous talk
  - Non-participation in peer support
  - **Absence** of data so harder to recognise
Hearing silences

**Anticipated**

- Non-participation in maths problem-solving events
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**Unanticipated**

- Non-participation in humorous talk
- Non-participation in peer support
- Absence of data so harder to recognise
- Only realised full extent of exclusion when writing up sample following transcription
  - Some participants had not been allocated pseudonyms as no recorded utterances to transcribe
Group work as new site of inequality?

Collaborative groupwork in mathematics classrooms endorsed by Ofsted (2006)

Learners with support needs not only miss out on this...

...But also miss out on wider social capital benefits

Non-participating students even more excluded by introduction of collaborative groupwork?

• Not recognised in official guidance to teachers
What counts as data?
What counts as data?

Is silence an absence of data...?

...Or data itself?

Some useful metaphors...
Some useful metaphors for classroom language as data...

“A crucial window for researchers onto the processes of teaching, learning and doing mathematics”

(Morgan 2006:219)
Some useful metaphors for classroom language as data...

“Sociolinguists have pointed out the importance of looking at the window of language and not just through it”

(Mehan 1984:181, my emphasis)
Some useful metaphors for classroom language as data...

Language, like a finger, is a medium for pointing at ideas and objects...

(Wagner 2005:3)
How to report silences?
How can we report silences with the same authority and credibility as transcribed / recorded talk?

“How National seminar for numeracy learning experts”
Further Reading on Silence and Participation in Classroom Groupwork

Outcomes of Research Project discussed


References


Freire, P (1972) Cultural action for freedom Harmondsworth: Penguin


References

Rampton, B. (2003) Coming To Linguistic Ethnography From A Background In Teaching Contribution to LEF Colloquium on Linguistic Ethnography at the Interface with Education BAAL Annual Meeting, September 2003