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

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# Hearing silent voices: Talk and silence as data in “Skills for Life” classrooms


Helen Oughton  
University of Bolton

Paper presented at:  
*Explorations in Ethnography, Language  
and Communication*  
Aston University, Birmingham, UK  
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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**

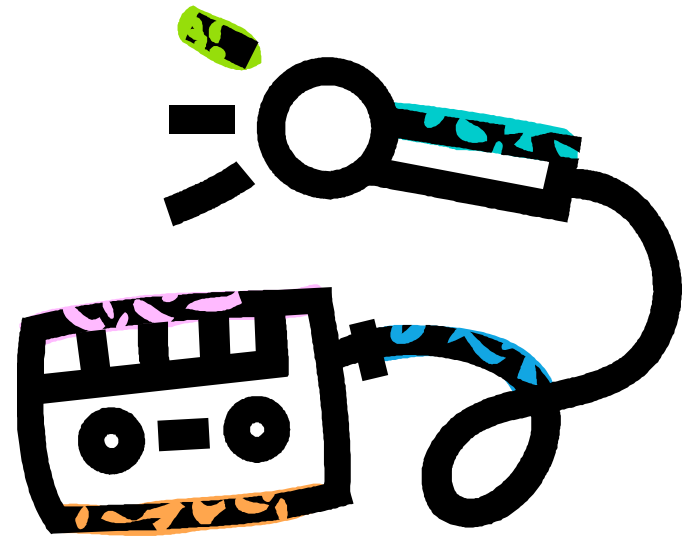
What do we mean by  
collaborative groupwork?

Vygotskian  
(socio-  
constructivist)  
principles

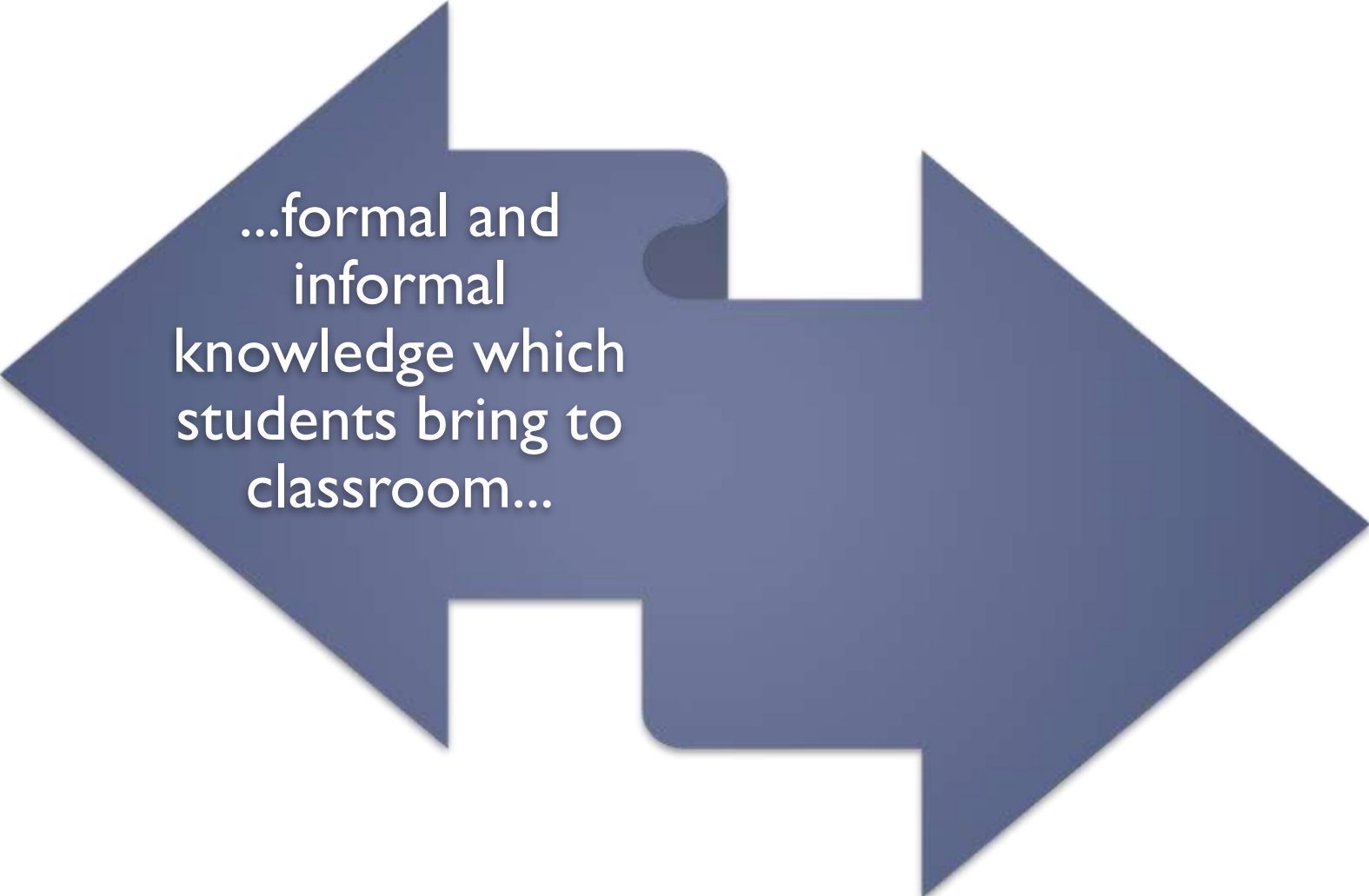
Learners work  
together to  
solve problems  
with little input  
from teacher

Promoted to  
adult numeracy  
practitioners in  
England since  
2007

# 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

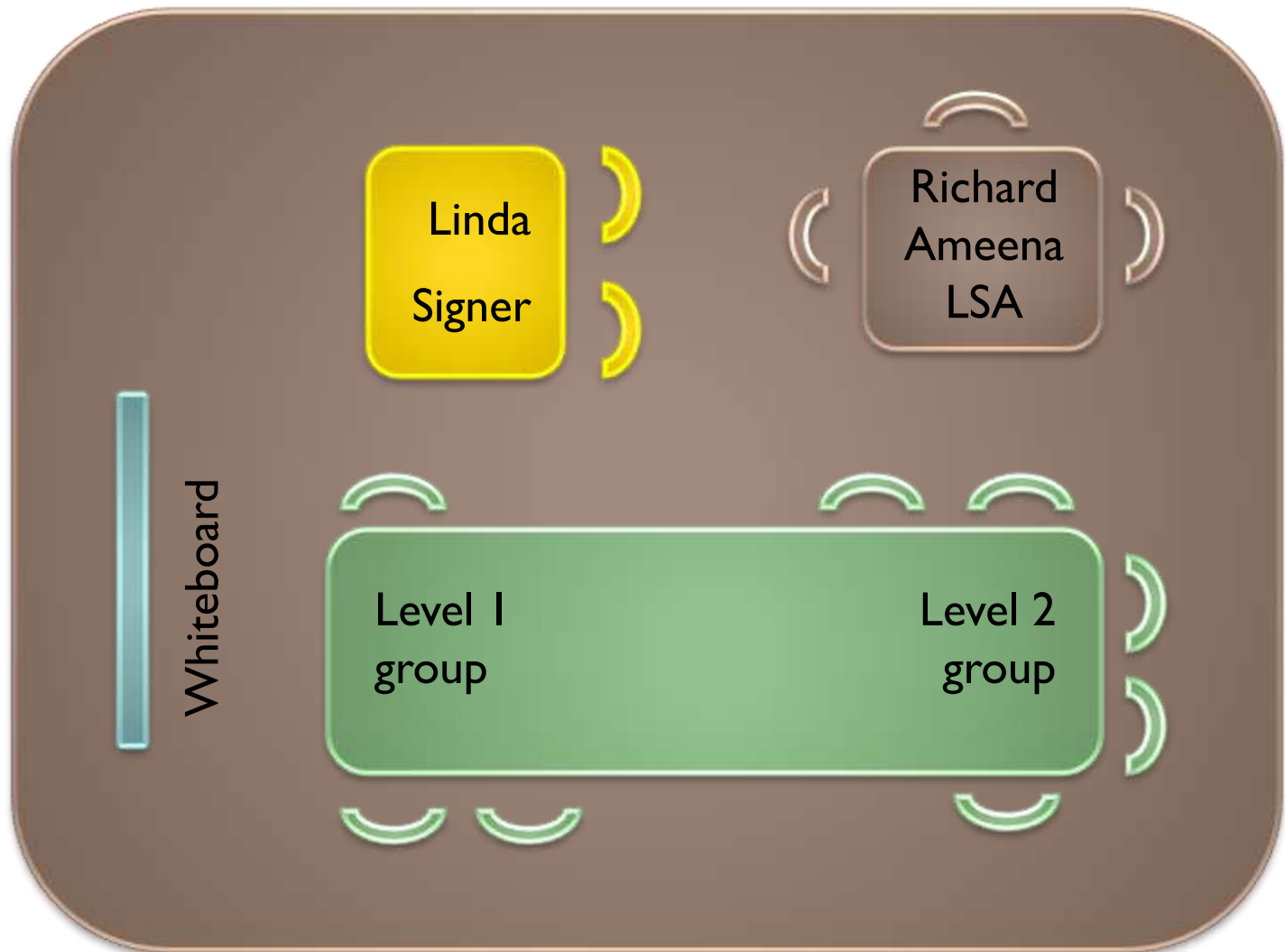
## Adult numeracy class

- 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



# Data Collection

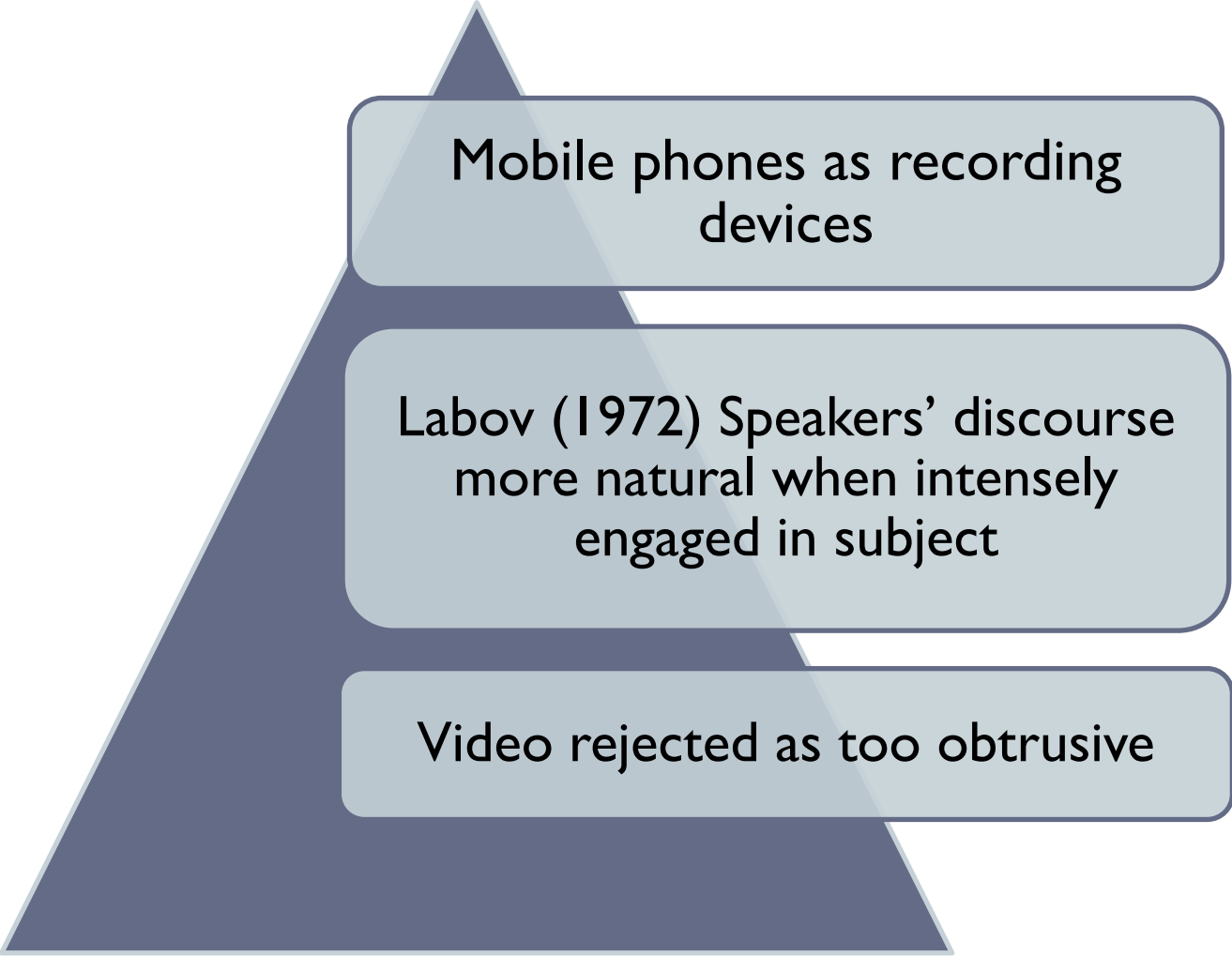
Audio-recording learners' peer-peer discussions in classroom

Microphones recorded...

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

Approximately 11 hours of useable audio data collected

# Naturalistic data?



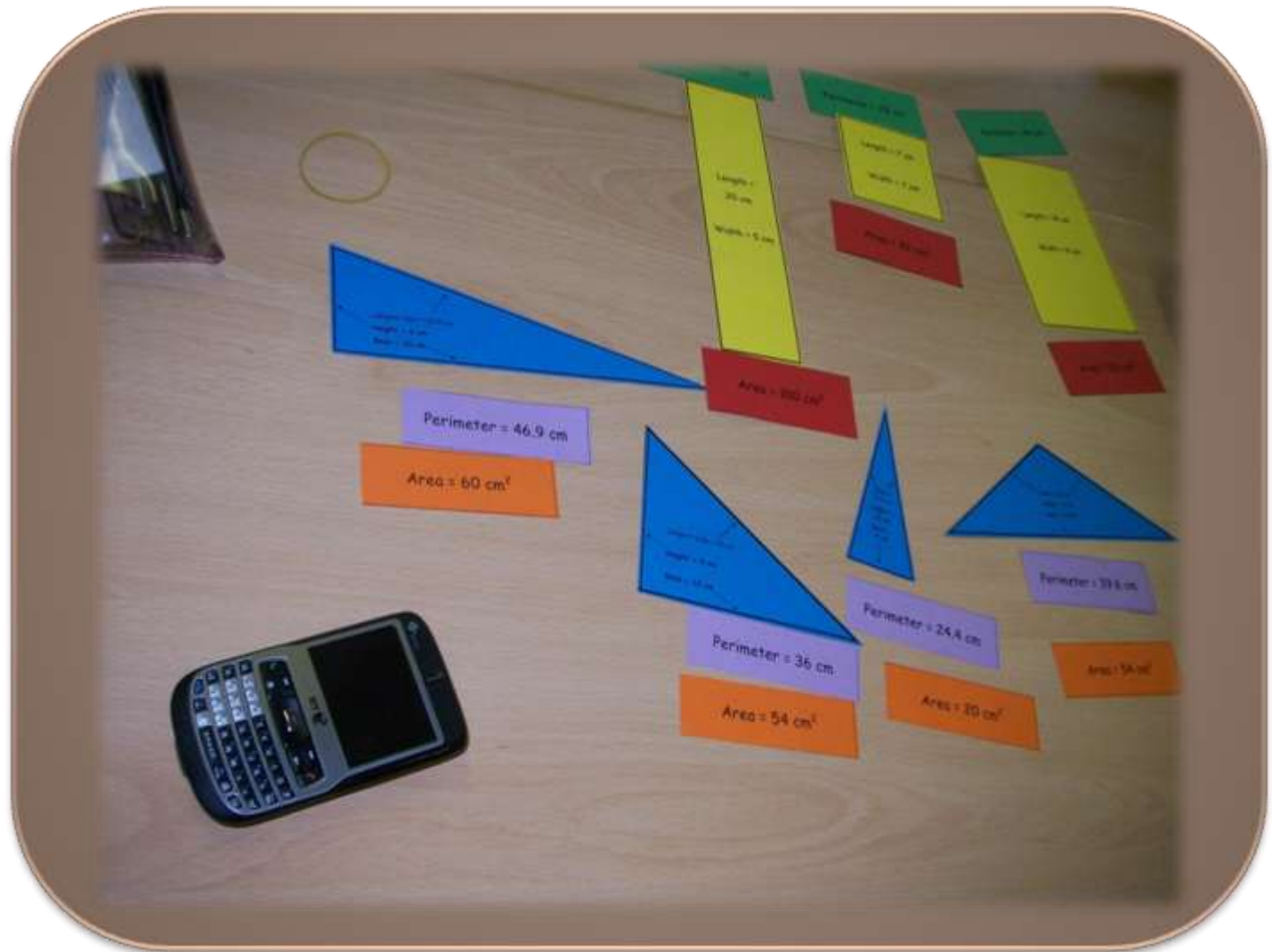
Mobile phones as recording devices

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



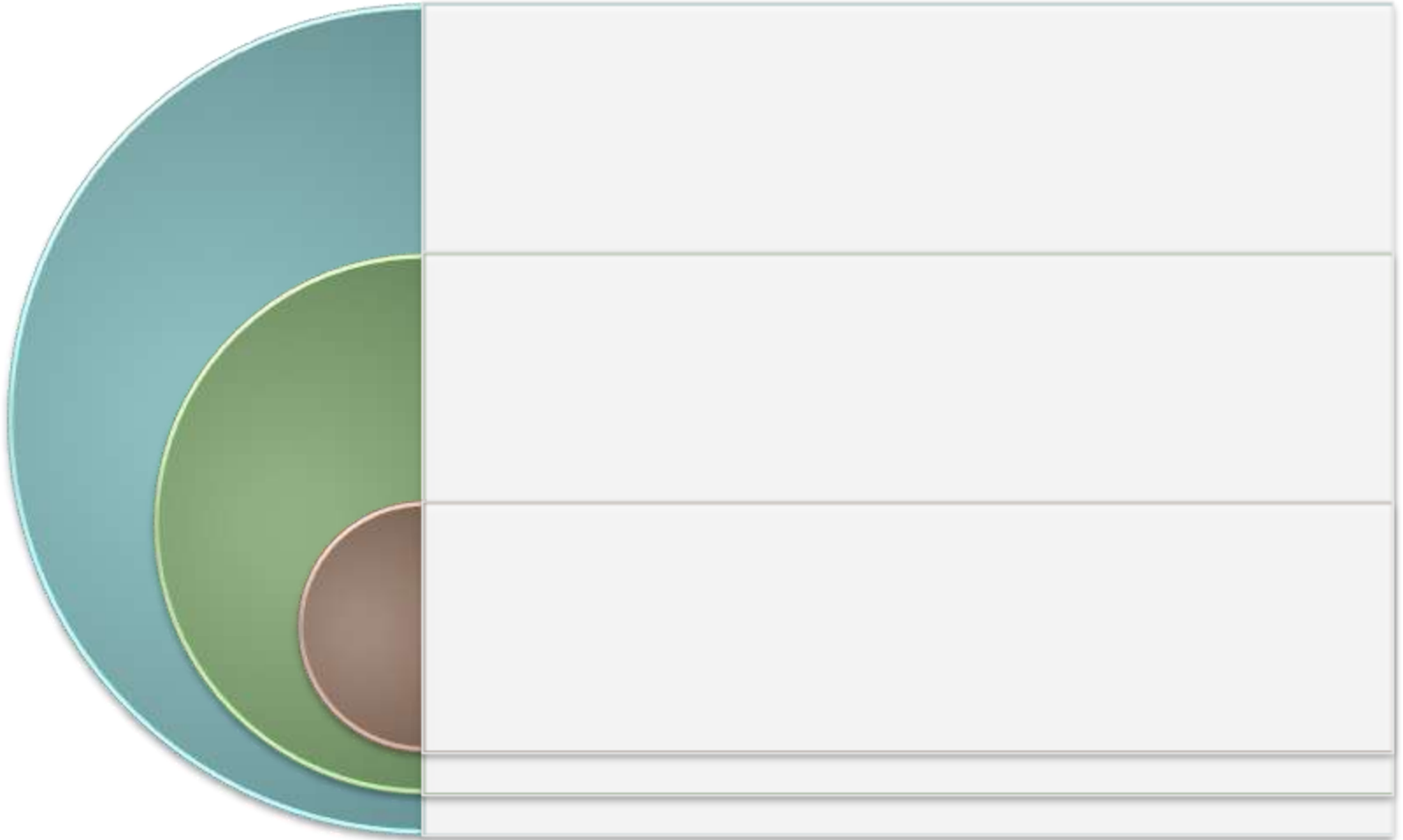
# Beyond mathematics: Peer discussion events

Analysis taking a social (rather than cognitive) perspective

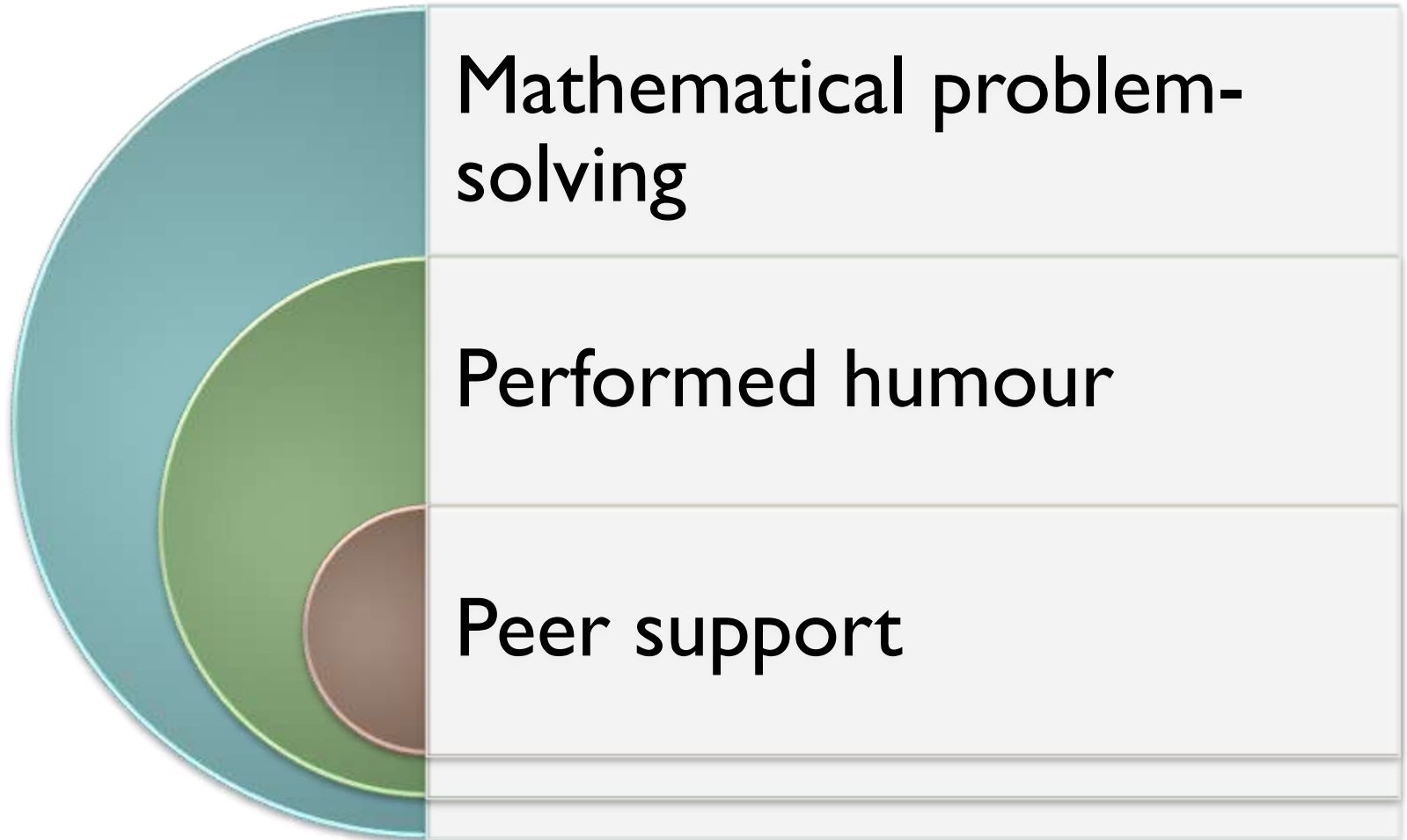
Although neo-Vygotskian researchers often refer to their approach as ‘socio-cultural’... they do not seem to address the socio-cultural nature of language...events and practices in the classroom

- Maybin 2003:1

# Beyond mathematics: 3 categories of peer discussion events



# Beyond mathematics: 3 categories of peer discussion events



# 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

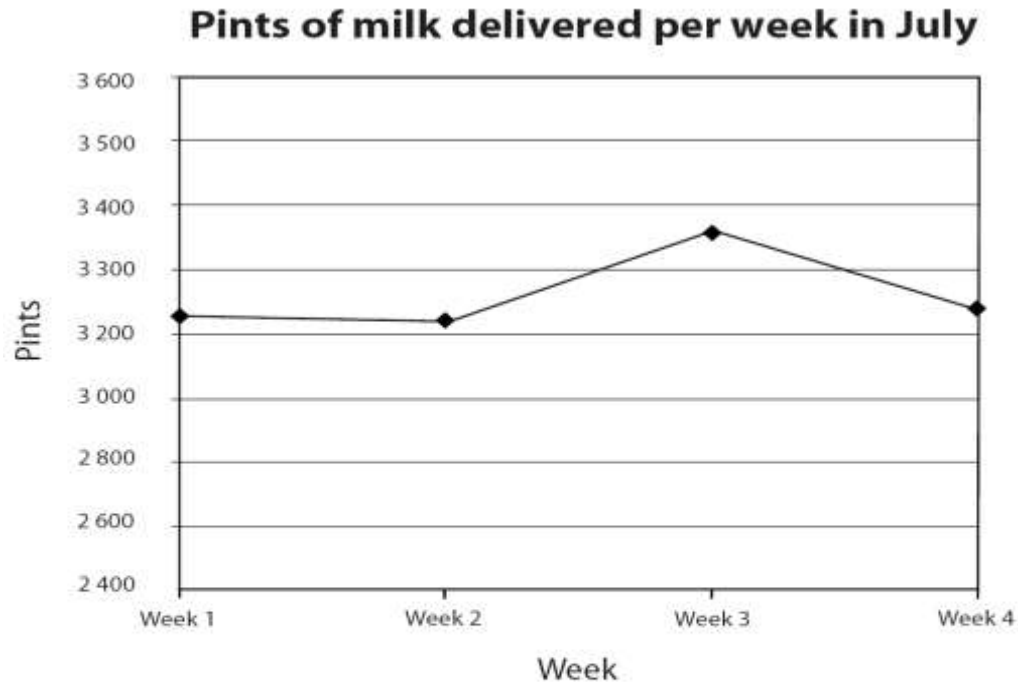
“Shield” against vulnerability of wrong answer

Negotiation of boundaries between informal and mathematical registers

# Types of peer discussion event

## Mathematical problem-solving

- 10 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



# 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”

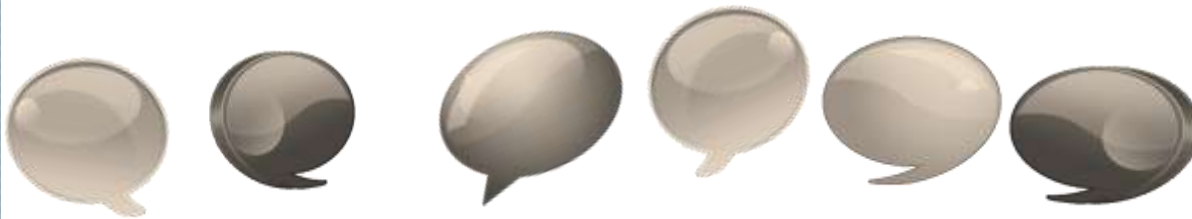
- (Tett and Maclachlan 2007)

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

- (e.g. Balatti et al 2006)

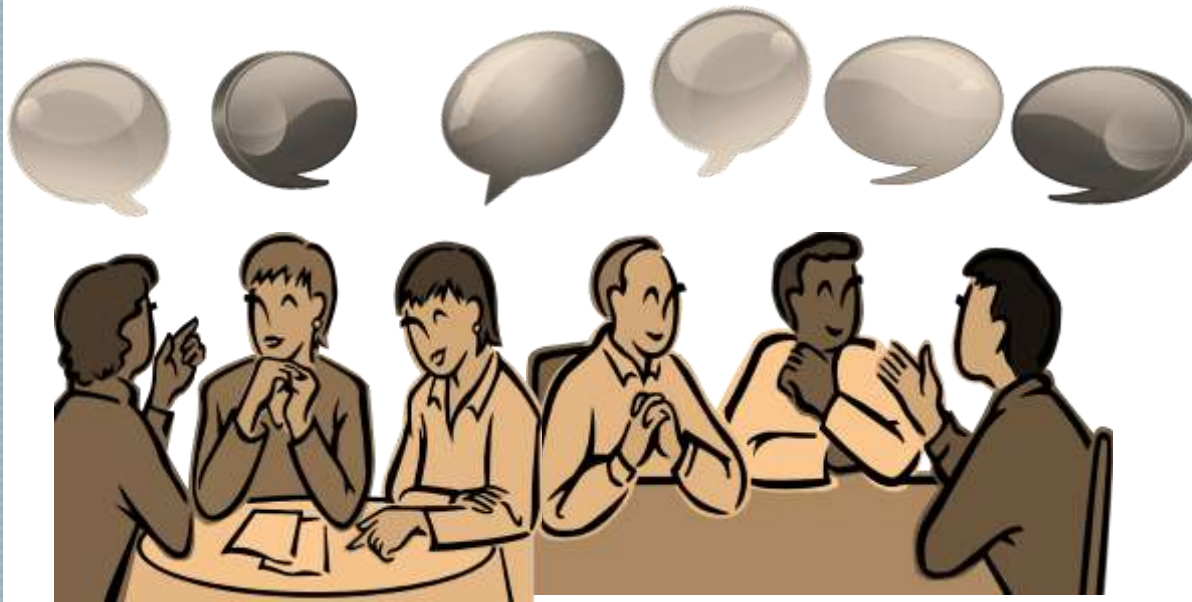
# Learners' silences as data

Learning to “hear” silence



# Learners' silences as data

Learning to “hear” silence



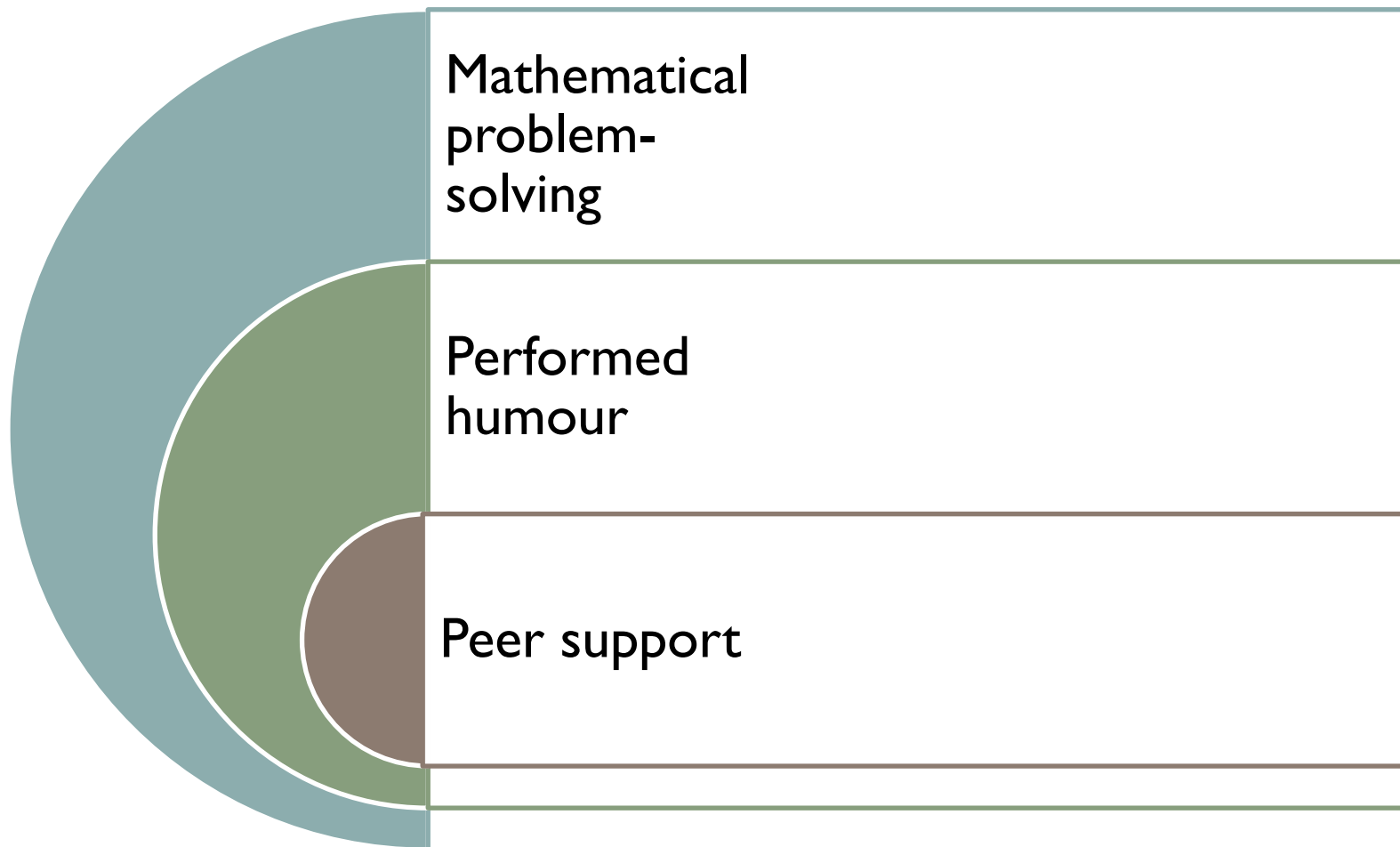


# Learners' silences as data

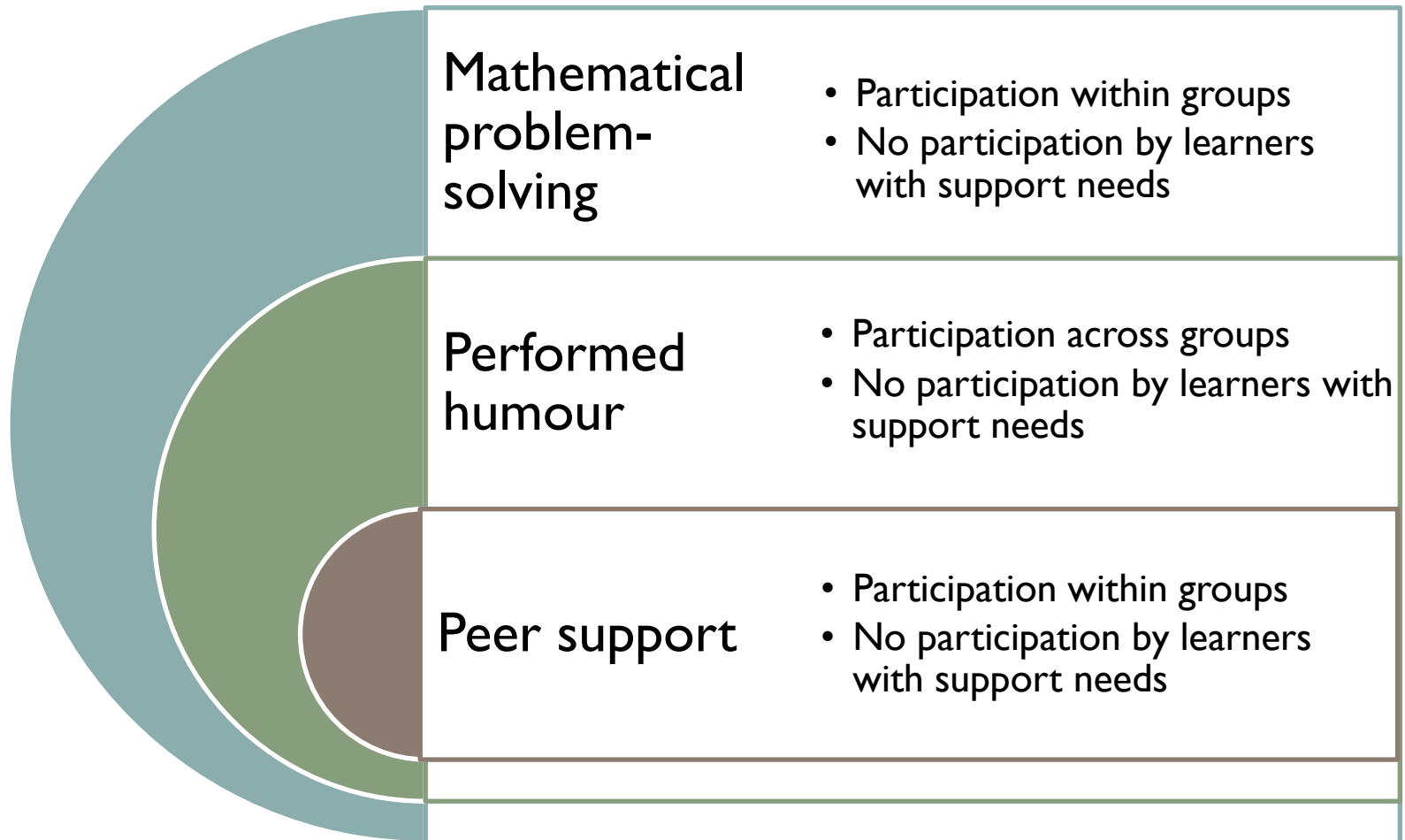
Learning to “hear” silence



# Types of peer discussion event: Who participated?



# Types of peer discussion event: Who participated?



# 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
- Deaf students
- Opportunity to collect alternative forms of data
  - e.g. Arrange with deaf student signer

## Unanticipated

- Non-participation in humorous talk
- Non-participation in

- 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 to report silences?

How can we report silences with the same authority and credibility as transcribed / recorded talk?

“National seminar for numeracy learning experts”



# Further Reading on Silence and Participation in Classroom Groupwork

- Delpit, D. 'The Silenced Dialogue: Power and Pedagogy in Educating Other People's Children', *Harvard Educational Review* 58(3) pp. 280-298
- Stables, A. (1995) 'Learning through talk and learning through talking: Sound and silence in the classroom', *Language and Education*, 9(1) pp. 61-68
- Davies, J. (2003) 'Expressions of Gender: an Analysis of Pupils' Gendered Discourse Styles in Small Group Classroom Discussions' *Discourse and Society* 14(2) pp. 115–132
- Wagner, D. (2005). *Silence and voice in the mathematics classroom*, Canadian Mathematics Education Study Group Conference Ottawa, Canada.

# Outcomes of Research Project discussed

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- Oughton, H. (2009b) "We all play teacher": *Naturally-occurring student discourse in adult numeracy classrooms* Paper presented at Adults Learning Mathematics 16, London, July 2009 (proceedings forthcoming)



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- Swain, J. (2005) "'Beyond the Daily Application": motivations for adults attending numeracy classes', *Research in Post-Compulsory Education*, 10(3) pp. 305-323
- Tett, L. (2000) 'Excluded voices: class, culture and family literacy in Scotland', *Journal of Adolescent and Adult Literacy*, 44 (2) pp. 122-137
- Tett, L. and Maclachlan, K. (2007) 'Adult literacy and numeracy, social capital, learner identities and self-confidence', *Studies in the Education of Adults* 39 (2) pp.150-167
- Wagner, D. (2005). *Silence and voice in the mathematics classroom*, Canadian Mathematics Education Study Group Conference Ottawa, Canada.