

***How Lesson Study works and what it offers: findings from the Raising Levels of Achievement project***





## *Raising levels of achievement for pupils with MLD using Lesson Study*

- 2 year D and R project funded by Esmee Fairbairn Foundation
- Development wing:
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  - Consultants: Pete Dudley, Gill Jordan, Di Hatchett
- Evaluation wing:
  - Annamari Ylonen, Ruth Gwernan-Jones
  - Coordinator Brahm Norwich
- 3 phases:
  - Phase 1: 17 schools: 2 terms 2-3 LSs; more training and support
  - Phase 2: 14 schools : 1 term 2 LS: less training/support
  - Phase 3: development of product and dissemination
  - TDA: SEN CPD contract





# Background

- Moderate learning difficulties (MLD) largest proportion of those identified as having SEN in UK
- Contentious category and neglected as a focus for educational initiatives.
- Examines how MLD category used in the **Raising Levels of Achievement through Lesson Study** project
- Project aims to improve the learning experiences and opportunities of pupils with MLD at key stage 3 (11-14 years in English secondary schools)
- Lesson Study - a high profile international method of in-school professional development



# MLD category is a contested one

A term introduced by Warnock Report 1978 to replace educational sub-normal (ESN moderate)

Prevailing uncertainty:

- Poorly defined
- Is it needed?
- Who and how to identify?

The questions: 1) Are these pupils at the lowest end of the continuum of lower attaining pupils? OR, 2) Have they a mild-moderate intellectual disability?

- Historic uncertainty about position of pupils with MLD
- Between those with severe intellectual disabilities and 'normal' pupils who are lower attaining
- Distinct from specific learning difficulties

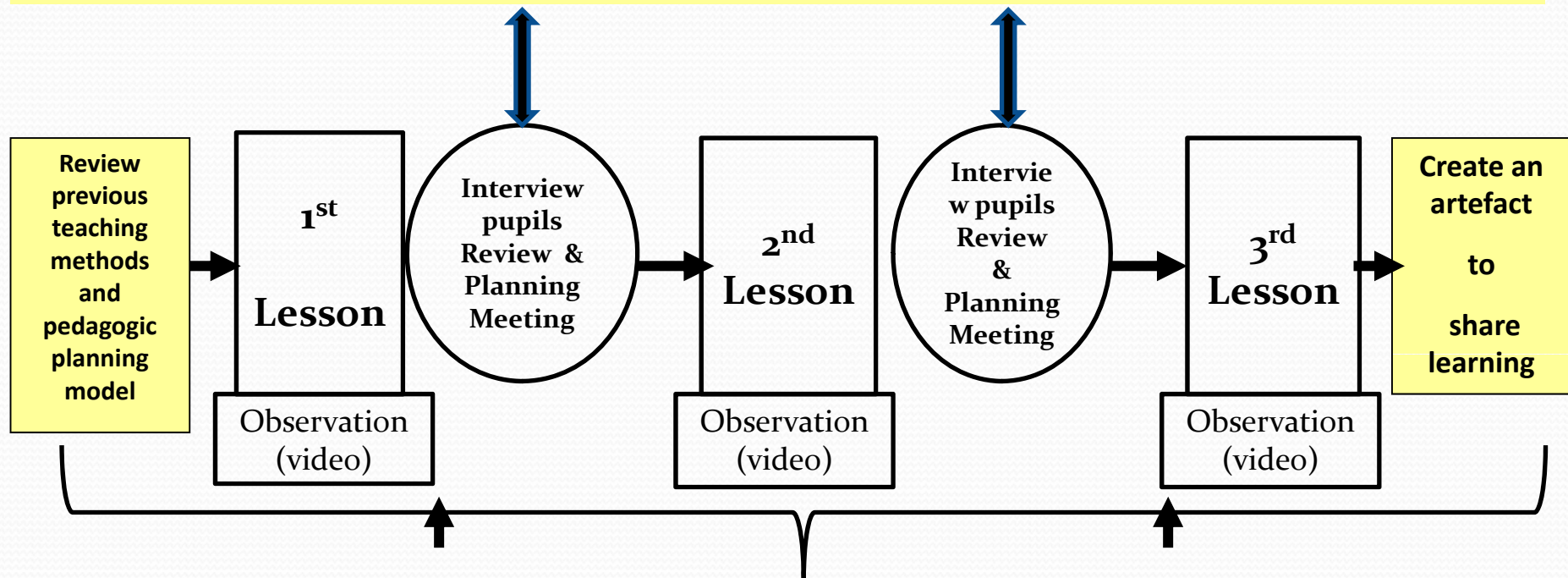


# What is Lesson Study?

[http://www.youtube.com/watch?v= NhX-dV75pM](http://www.youtube.com/watch?v=NhX-dV75pM)

<http://www.youtube.com/watch?v=nV35Nr0DKFs&feature=related>

**Knowledge base – teachers use knowledge and understanding (research informed) about focus area and pedagogy**



**Whole school conditions / Senior Leadership support**


**1 Lesson Study**



## Lesson Study and collaborative action research: commonalities and distinctions

- Common to BOTH:
  - Plan/do/review cycle
  - Teacher collaboration
  - Enables theory-practice links
- Specific to Lesson Study:
  - Protocols and approaches (3 research lessons form 1 Lesson Study)
  - LS team classroom observation (focused on pupils)
  - Learning focus
  - Focus on case pupils
  - Trust/openness in team





## **Distinctive features of LS compared to ordinary lesson review: from LS teacher (Sept 11)**


- LS review includes lesson observation by other team members
- Development of novel teaching approaches – learn from other teachers (cross curriculum inputs)
- Focus on individual needs (not treat all pupils with SEN as similar)



## Lesson studies undertaken in phase 1

- 14 secondary schools in two urban and two rural LAs in SW England
  - Two teachers per school in the areas of literature , arts and/or humanities
  - 1-2 pupils with MLD per class
  - All KS3 (aged 11-14)
- Number of LS per school: mostly three cycles (9 lessons)
- LS team – membership numbers: 2-4+
- Kinds of themes/foci of LS:
  - promotion of independent learning; development of higher level thinking skills; encouragement of participation in group work





## Evaluation Part 1 (pupil level): aims/research questions

- One of the main aims of the MLD Lesson Study project is to evaluate the usefulness of the MLD category
  1. What is the pattern of scores of pupils identified with MLD in reasoning, literacy, academic self concept, resilience and attitudes to school and class learning?
  2. How do those pupils identified with MLD compare with others in their classes identified as having SpLD, with low and average attainment?



## Pupils details

- Total sample of students in LS classes n=119
- MLD (focus pupils) and control pupils in LS classes:
  - Pupils with MLD 61 (51%)
    - School Action 22 (52% of the total of 42); School Action+ 8 (19%); Statement 12 (29%); and SEN level not known 19
  - Pupils with SPLD 25 (21%)
  - Pupils who are low attaining 19 (16%)
  - Pupils who are average attaining 14 (12%)

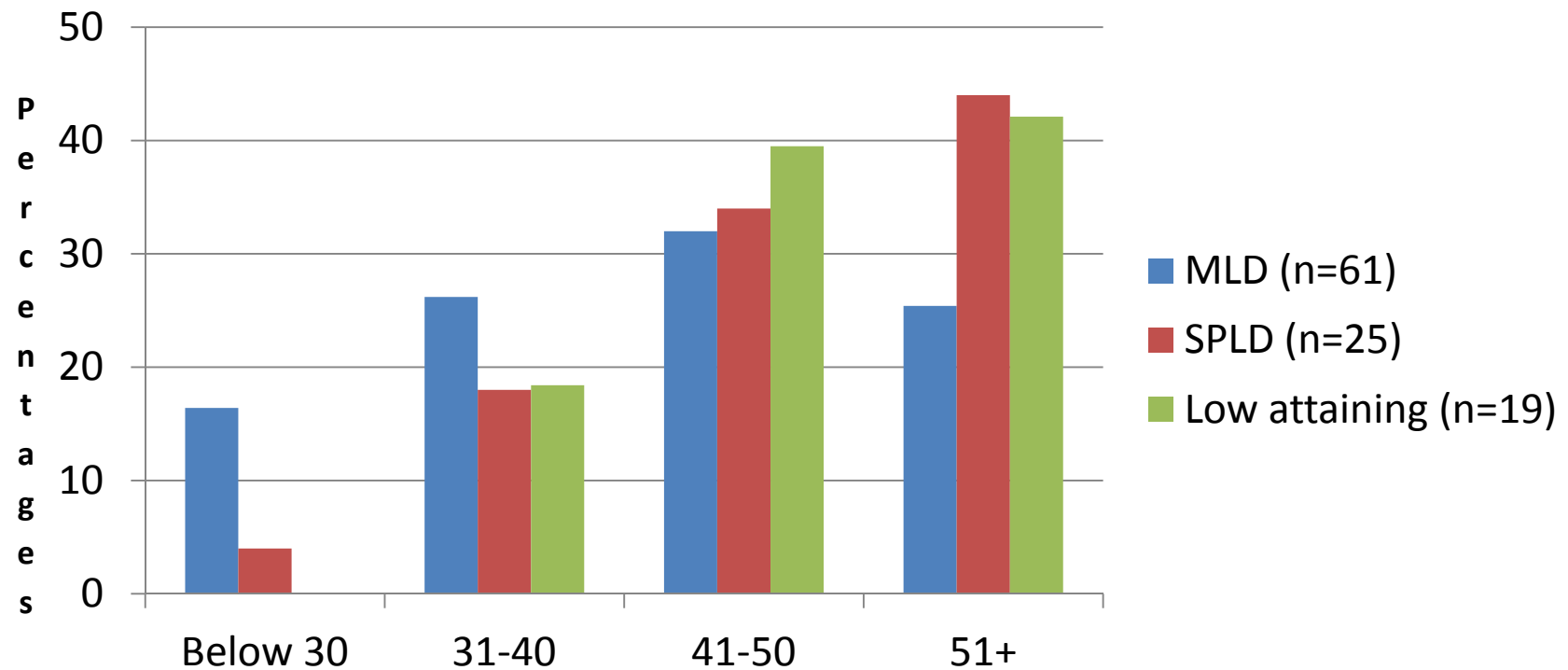




## Methods: pupil level

- British Ability Scales – verbal/non-verbal cognitive ability (reasoning: matrices/verbal similarities, literacy: reading/spelling)
- MALS (Myself-as-Learner-Scale) – self-concept as a learner
- Resiliency scales. Personal attributes to assess e.g. optimism, adaptability, sense of trust and comfort with others (Mastery and Relatedness measures)
- Attitudes to class and school survey

# BAS matrices and verbal similarities (reasoning) T-scores (%)



Score of under 30 = in the lowest 2% of age group

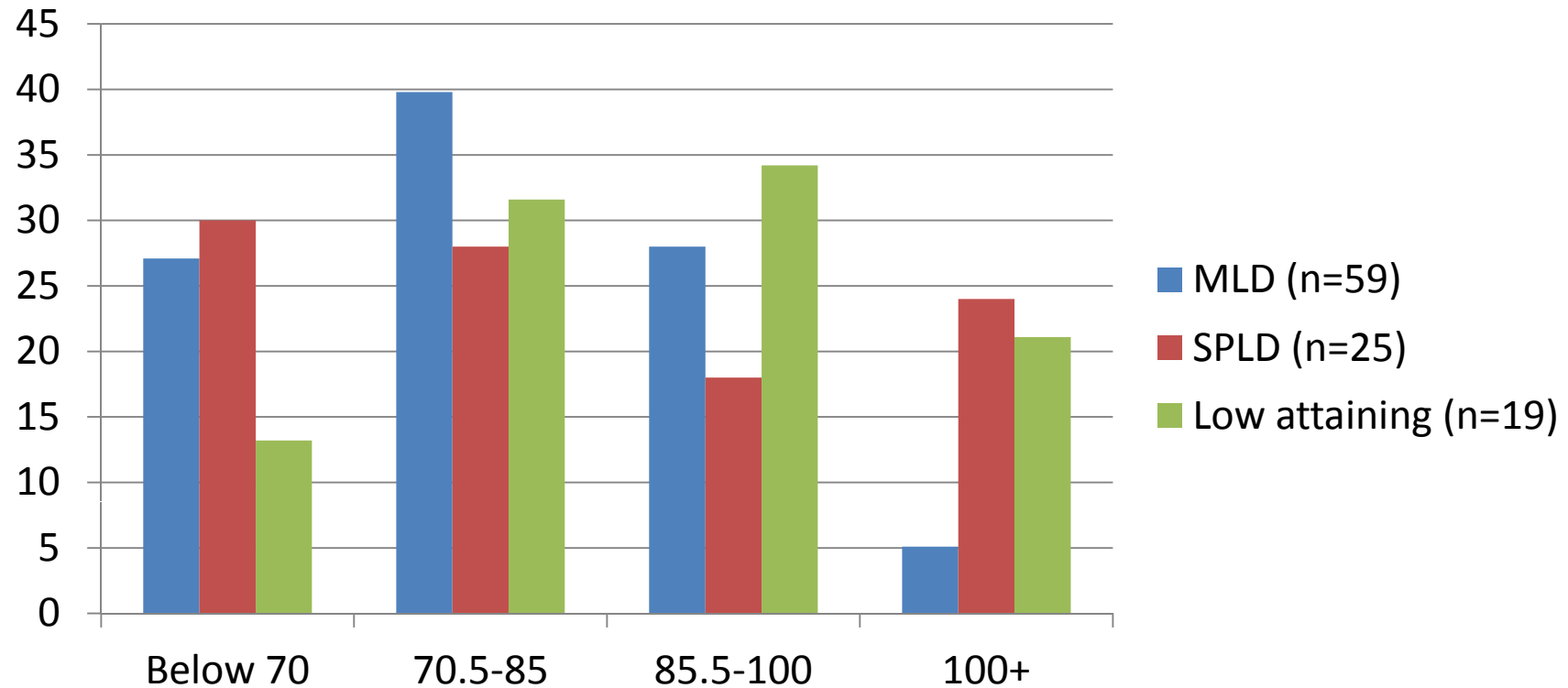
Score between 31-40 = in the lowest 2-16% of age group

Score between 41-50 = 17-50%

Score of 51 and above = 50% + (above average)



# BAS spelling and reading (literacy) standard scores (%)



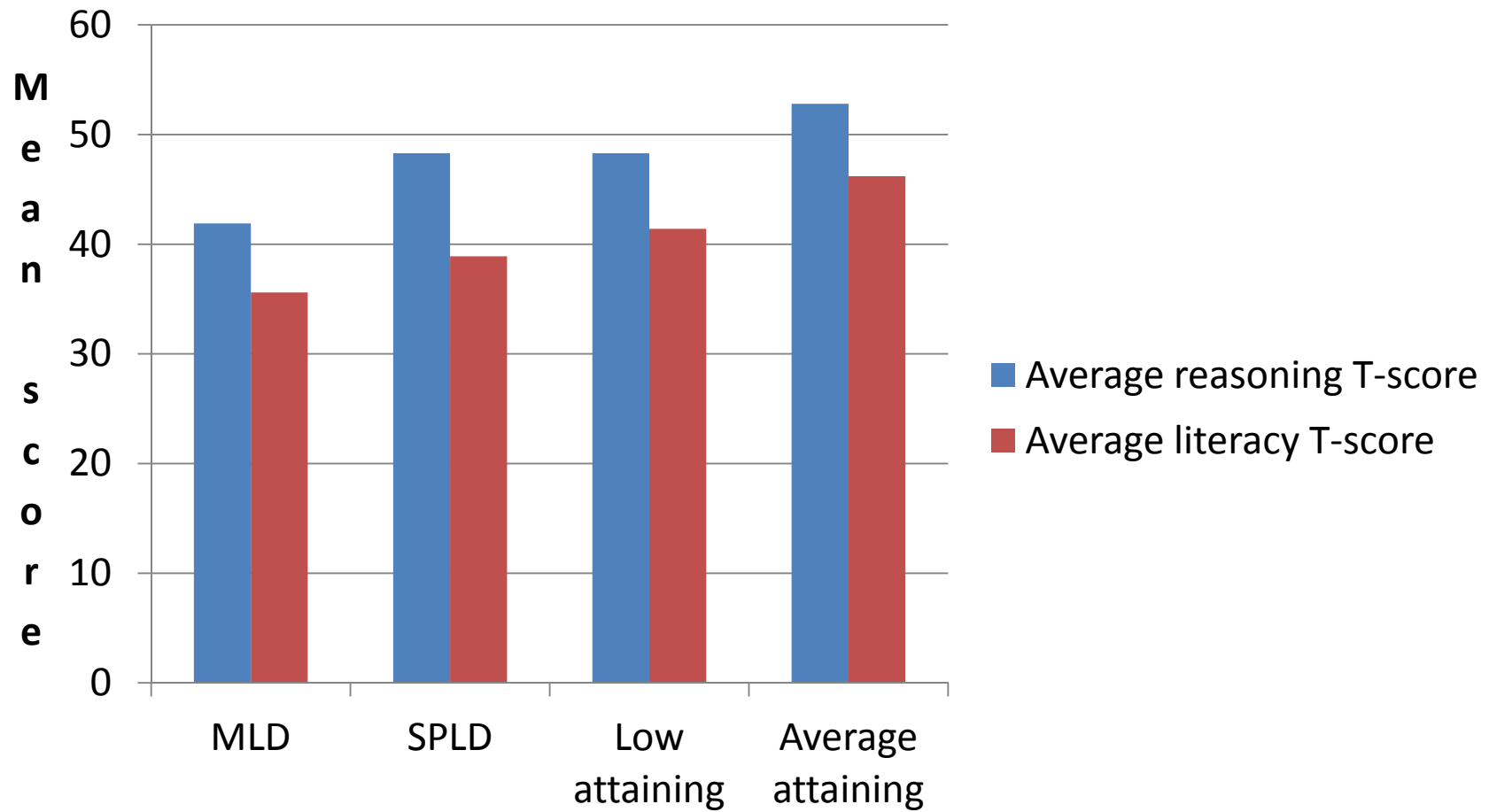
Scores below 70 = in the lowest 2% of age group

Scores between 70.5-85 = in the lowest 2-16%

Scores between 85.5 and 100 = 17-50%

Scores of 100.5 and above = 50% + (above average)

# Average (mean) BAS reasoning and literacy T-scores





## Conclusions (part 1)

- What is normative pattern of BAS scores of pupils with MLD?
  - MLD reasoning: mostly above 17% (about 1 SD below mean); unexpected finding
  - MLD literacy: mostly 2-16%; much lower than in reasoning
- How do pupils with MLD compare with others identified as having SpLD, with low and average attainment?
  - In reasoning and literacy, **no statistically significant differences** between pupils with MLD and with low attainment
  - In terms of self-concept, resilience and school attitudes, pupils with MLD do not differ considerable from the others (SpLD group had the lowest mean scores in all areas examined)
- The MLD category likely to benefit from a tighter definition



## Evaluation part 2 (teacher level): Research questions

- Before and after the lesson study programme:
  - What are teachers' concepts of an inclusive school?
  - What are teachers' attitudes to inclusive schooling?
  - What are teachers' concepts of MLD?
- What pedagogic / teaching strategies do teachers report as having developed for pupils with MLD from using lesson study?
- How specialised are these pedagogic strategies: is there an MLD specialist pedagogy?





## Methods: teacher level

- Survey about the views of participating teachers on inclusion and the concept of MLD: at the start of project (November 2010) (n=34), repeated at the end of the project (July 2011) (n=17)
- Questionnaire after completion of 6 months use of LS about the teaching strategies used/developed during the project for pupils with MLD, July 2011 (n=22)
- Analysis of LS case reports for reported strategies used





## Findings (part 2)

- Inclusive schooling attitudes:
  - Stronger belief in principle than class practice
  - principle remains high; slightly more doubt/disagreement practice
  - Strong belief in own school as inclusive; fewer agree at end
- Concept of inclusive schooling:
  - Consistent pre-post LS
  - Admits diversity; welcomes all, teacher responsibility
  - BUT, excludes for behaviour + recommend special school



## Pedagogic approaches

- **Differentiation (55)** e.g. extension tasks if finish early or to stretch; specific learning objectives; smaller chunks - tasks broken down
- **Multi-modal/sensory approaches (55)** e.g. regular use of film, music and recording and watching work
- **Grouping and peer relationships/support (50)** e.g. layout of classroom and groupings in attempts to maximise learning
- **Assessment of learning (41)** e.g. repeating a diagram in reverse to check understanding
- **Motivational approaches (31)**, e.g. use of lots of praise and encouragement, including developing peers to recognise positive aspects of one another's work





## Pedagogic approaches (continued)

- **Working with additional adults (19)** e.g. TAs deployed to support pupils
- **Adult-pupil communication (18)** e.g. structured questions to help pupils access key info and concepts
- **Memory and consolidation (16)** e.g. verbal, visual, practical reminders throughout lesson: repeating the learning to mastery before moving on, retrieving information for themselves instead of being teacher-lead
- **Activity based learning (13)** e.g. role play
- **Pedagogic methods/assumptions (8)** e.g. scaffolding and one-to-one coaching





# Model of pedagogic strategies

- Broad pedagogic approach:
  - Pedagogic methods/assumptions
  - Activity based learning
  - Assessment for learning
- Input (multi-modal/sensory approaches)
- Cognitive demand:
  - Level/style (differentiation)
  - Memory/consolidation
- Motivational approaches
- Learning relationships
  - Grouping and peer support
  - Adult-pupil communication
- Working with additional adults



## Conclusions (Part 2): teacher beliefs and pedagogic strategies

- Inconsistent concepts about MLD:
  - Belief that no difference MLD/low attainment consistent with no distinct MLD pedagogy
  - Beliefs reflect lack of coherence in formal concept of MLD, as well as basic uncertainties about the MLD concept
- Most pupils with 'MLD' in LS programme not represent those with more learning difficulties, so conclusions: limits generalisation from evidence
- Implications of continuum of pedagogic strategies for ITE and CPD





## Conclusions (part 2): MLD pedagogy

- Broad concept of pedagogy relevant to pupils identified as having MLD
  - Covering pedagogic approaches, cognitive demand, motivation and learning relationships
  - Not just about cognitive demand; nor simple idea of differentiation
  - No distinct pedagogic approaches: that are not relevant to others without MLD, e.g. low attainment or other SEN (SpLD)
  - Consistent with idea of intensified general pedagogic strategies : continuum of pedagogic strategies (Lewis and Norwich, 2004; Fletcher Campbell, 2004)



# Pedagogic approaches

**Specialist/SEN**

**Generic adapted/  
Low attaining to  
above average**

**Is there a specialist pedagogy for MLD?**

**Generic  
intensified /  
SEN**

**Generic adapted/  
Low attaining to  
above average**





## Evaluation part 3 (process level): aims and methods

- Informed by ‘Realistic Evaluation’: examine links between contexts, mechanisms/processes and outcomes of LS
  - why and how the LS works in schools/impact on teaching and teachers
  - Aim: to construct process theory of LS
- Survey about the Lesson Study process for participating teachers at the end of Phase 1 (July 2011) (n=18)
- Semi-structured interviews about LS process and outcomes (n=9)



## LS outcomes: mostly or definitely responses

### **School level**

- Attendance at LS meetings regular and prioritised 13/18
- LS teachers feel supported by SL 11/18
- Teachers with responsibilities encourage LS teachers 9/18
- Some teachers not in LS team want to become involved 7/18

### **Teacher level**

- More confidence to try novel teaching approaches 15/18
- More open to learning from others 12/18
- More willing to make changes to usual teaching 15/18
- Increased capability to engage pupils with MLD in learning 15/18
- Increased capability to articulate aspects of their practice 15/18





## LS mechanisms: mostly or definitely responses

### **School level**

- Senior teachers (ST) try to improve inclusive provision in school 13/18
- STs aware of LS relevance to CPD in SEN/MLD areas 11/18
- School actively supports its commitment to project 12/18
- School encourages teachers to participate in collaborative CPD 16/18
- Timetable flexibility enables LS teachers to meet regularly 9/18

### **Teacher level**

- More focus on pupil learning rather than evaluating teaching 18/18
- More interest in developing teaching for pupils with MLD 18/18
- Sharing of risks and more willingness to learn from errors 16/18
- More time to reflect, plan and problem solve in supportive setting 14/18
- New ideas about MLDs and teaching pupils with MLD 17/18



## Conclusions (part 3): evaluation of LS

- Outcomes for participating teachers and schools seen as positive: but more positive at teacher level
- mechanisms/ processes
  - School level – some supportive processes but practical issues experienced about meetings in half schools
  - Teacher level – LS processes seen as very enabling :
    - Pupil focus
    - More interest in teaching focussed on pupils with MLD
    - Learning from errors
    - Time to reflect / problem solve
    - Develop new teaching ideas





## Phases 2 and 3

**LS Phase 2** just started – 14 new schools in SW and home counties

- Nov- Feb: each LS team to run 2 LS
- Further developments of LS process and procedures
- More focussed monitoring and evaluation than phase 1

### **Phase 3 dissemination**

- TDA MLD module based on project – part of wider national training programme for ordinary school teachers
- LS materials used in other SEN modules – SpLD, autism, SLI etc.
- Products:
  - Interactive web-based LS programme for use in ITT, CPD, Masters level work etc
  - Book about LS in theory and practice with chapters by LS teachers
  - Academic publications
  - Future research and development projects





Future directions: 2 divergent possible lines

## **1. Developing Lesson Study in PGCE Initial Teacher Education and Training**

- Introduce starting teachers to a collaborative and reflective practitioner model of teaching
- Partnership model between university providers & schools changing: 'Teaching schools' supposed to have lead role in organising ITE/T.
- University tutors have key role in LS process; become involved in establishing LS practices and complementary role in LS teams



## Developing Lesson Study in PGCE In initial Teacher Education and Training

LS-ITE/T model could involve the following aspects:

- Schools including the ITE/T school based tutors will be trained and experienced in the principles and practices of LS,
- At least 2 trainees who are paired for LS work (for secondary this could be cross- subject pairings to support cross-curriculum learning),
- A university tutor (subject or curriculum specialist with knowledge about LS) can be linked by skype or other video system to participate in school based LS review/planning meetings (2-3 per LS).





## **2. Using Lesson Study as dynamic assessment method to identify learning needs of pupils with SpLD and MLD**

- Some LS teachers: saw LS as useful for ‘diagnostic’ assessment
- Focus on pupils with general moderate learning difficulties and specific learning difficulties: issues about categories and identification
- Move away from traditional child focussed model to response to teaching models





## **Lesson Study as dynamic assessment method continued**

- LS with focus on case pupils/ learning could provide structure for response to teaching approach to assessment
- Curriculum and classroom based; LS team could involve specialists like SENCOs and outside professionals such as Ed Psychs
- Research aims:
  - Develop and evaluate LS as response to teaching / dynamic assessment method
  - examine pedagogic significance of SpLD/ dyslexia and MLD categories in classroom context



# Project website

For further information and  
resources, please go to:

[www.lessonstudymld.org.uk](http://www.lessonstudymld.org.uk)