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'Understanding inequalities in early language and communication: Why do some children fall behind? What does this tell us about strategies for intervention?'

dansk audiologopædisk forening
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Plan of presentation

Language learning needs – what and why?

What are the impacts for professionals?

Models of intervention?

Relevance to the Danish context?

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Language learning needs: what and why?

listening
understanding
talking
writing
reading

Language Inequalities

Significant numbers of pupils enter schools with delays in oral language
» Current estimates are that about 12% - 20% of children entering schools have language delays

Inequalities
– Social disadvantage
– First language status
– Developmental challenges
  • Hearing impairments
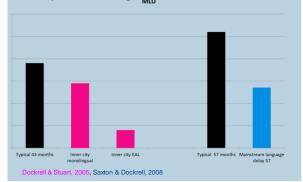 • Developmental difficulties

Disproportionate risk

Children who come from

a) disadvantaged backgrounds

b) whose first (home) language is not the language of instruction

c) significantly more likely to be identified as having Speech Language and Communication Needs (SLCN) (Dockrell et al., 2015)

Pupils with language learning needs an example

In England

- Only 19% of pupils with a **statement** for SLCN achieve target levels at age 11, in English (31% **school action pl**us)
- Only 6% of pupils with a statement for SLCN achieve a target grades at 16 (12% school action plus)

An example:
Variability in sentence length MLU

Typical 43 months   Inner city monolingual   Inner city EAL   Typical 57 months   Mainstream language delay 57

Dockrell & Stuart, 2005, Saxton & Dockrell, 2008

Lower SES and the young child

- Caregivers from different SES backgrounds provide their children with substantially different amounts of oral language input
- Mothers of from lower SES backgrounds
  - Have fewer utterances per hour
  - Shorter durations of speech
  - Respond significantly less to their children's utterances
  - Use more exact repetitions than expansions (Vanormelingen & Gillis, 2016)

Denmark

1. Is this relevant in the Danish context?
2. If so for whom?

The Danish context

- Under 18 living in poverty 10.2 %
  - lower than European average of 20.8%
  - However this has been increasing
- Vulnerable groups - single parents, children of ethnic minorities and children of unemployed parents –
  - where poverty rates are increasing significantly among ethnic minorities

Figure 2.2: Poverty rate, distribution by ethnicity[9]

The average Danish classroom (Søndergaard Knudsen, in submission)

- Teachers reported 51 different languages spoken by children in their classes
- Most frequent reported language was Arabic (80,3 %)
  - Kurdish (27,8 %),
  - English (23 %),
  - Turkish (18 %)
  - Polish (18 %)
  - Tigrinya (16.4 %).
- On average each teacher encountered four different L1s.

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DOES IT MATTER?

The importance of oral language

- Oral language skills underpin learning and achievement- supported by large numbers of research studies
- Literacy
  - Decoding & comprehension
  - Spelling
  - Writing
- Social emotional and behaviour
  - Adult relationships
  - Peer relationships
  - Bullying
  - Self esteem
- Other areas of the curriculum
  - Numeracy etc
  - Over 70% of children between 3 -5 with special educational needs have language learning difficulties

An example: Vocabulary

1. Mastering word identification (decoding) does not necessarily lead to reading comprehension
2. Vocabulary acquisition prerequisite for reading comprehension
    –   Need high-quality meaning-based (i.e., lexical) representations to support integration and inferential processes (Perfetti, 2007; Perfetti & Stafura, 2014)
    –   In younger readers vocabulary predicts
        •   Concurrent outcomes in reading comprehension (Ouellette & Beers, 2010)
        •   Longitudinal outcomes in reading comprehension

    –   When pupils above age 8 are considered, vocabulary influences
        •   Word recognition
        •   Reading comprehension (Ouellette & Beers, 2010)
    –   *Morphological skills* particularly important in reading as children progress beyond the initial stages

Vocabulary and reading -2

•   Orally assessed vocabulary levels in Grade 1 (6) account for 30% of reading comprehension variance in Grade 11 (16) (Cunningham and Stanovich, 1997)

•   **Vocabulary instruction** becomes an important factor in reading for a significant minority of children

•   A wide vocabulary supports the processing of unfamiliar words through strategies such as reading by analogy (Ehri, 2014)

•   A caveat – these data are for English – would it differ in Danish?

Vocabulary and writing

1. Spelling
    •   Advanced spelling in preadolescents and adolescents linked to awareness of morphology (Bourassa & Trieman, 2008)

2. Text generation
    •   Vocabulary (+ organisation and compositional fluency) made unique contributions to holistic quality in both monolingual English pupils and pupils with English as an additional language (Babayiğit, 2015)
    •   Morphological skills uniquely predictive of writing quality (Northey et al., 2016)
    •   Intervention studies demonstrate causal link
        •   Vocabulary instruction, either in teaching specific words or as a prewriting activity, improved the quality of narrative (Duin & Graves, 1987; Harris & Graham, 1985) and expository writing (Duin & Graves, 1987)

•   Pupils with lower language levels less likely to respond to quality first teaching (Wave1) (Justice et al., 2008)

•   Pupils with poor oral language skills are less likely to respond to reading interventions (Al Otaiba & Fuchs, 2006).

•   Children who first language is not the language of instruction less likely to respond to language and literacy interventions
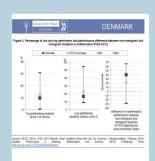
Denmark

1. What is done to support language learning If so for whom?
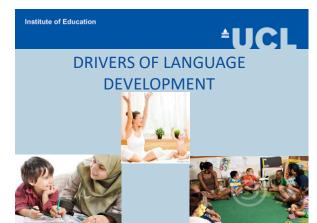2. When?
3. Where?

Denmark

- Fair and inclusive policies in early childhood education and care contribute to a more equitable education system
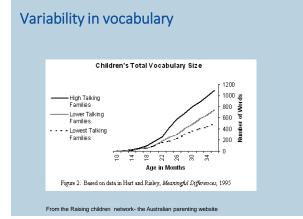 - 98% 4 years olds in ECE

- However children with an immigrant background have **a LOWER performance** compared to other OECD countries

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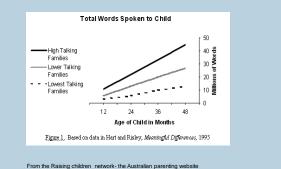## DRIVERS OF LANGUAGE DEVELOPMENT

Amount of exposure

- **Quantity** of parent talk is linked to children's later lexical proficiency
  - children of talkative parents demonstrate stronger linguistic abilities than children of less talkative parents

Variability in vocabulary

Children's Total Vocabulary Size

Figure 2. Based on data in Hart and Risley, *Meaningful Differences,* 1995

From the Raising children network- the Australian parenting website

The language that children hear matters

Total Words Spoken to Child

Figure 1. Based on data in Hart and Risley, *Meaningful Differences,* 1995

From the Raising children network- the Australian parenting website

1. Amount of exposure

- Principles that drive this effect
  - Children of mothers who provided more input at 18 months
    - knew more words
    - faster in word recognition at 24 months.
  - Input shapes children's **lexical processing efficiency** and that vocabulary growth and increasing facility in spoken word comprehension
  - Work together to support the uptake of the information that rich input affords the young language learner (Hurtado et al., 2008)

Talk alone won't close the 30-million word gap (Wasik & Hindman, 2015)

- Children need opportunities to talk, use vocabulary words, and respond to adults' questions.
- Adults need to create opportunities to talk, provide quality feedback on children's language, and use a lot of new vocabulary repeatedly in meaningful contexts.

2. Variations in school exposure?

- Kindergarten teachers explained word meanings during "teachable moments" in the context of other instruction.
  - one-time,
  - brief word explanations,
  - unsystematic word selection,
  - minimal time devoted to subject areas, such as science and social studies, where word explanations were most dense

  – Teachers serving in economically advantaged schools
    - explained words more often
    - were more likely to address sophisticated words than teachers in economically disadvantaged schools (Wright and Neuman, 2014)
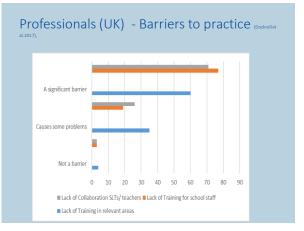
3. Nature of exposure

- Social interaction
  - Infants learn language phonology is enhanced by social interaction
    - Not prerecorded materials (Kuhl et al., 2014)
  - Talking **with** children
- Enriched linguistic input
  - Using and explaining high level words associated with larger vocabularies (even in disadvantaged families) (Weizman & Snow, 2001)
- Type of language (Cameron-Faulkner & Noble, 2013)
  - Talk with adults
    - Questions/imperatives
  - Books
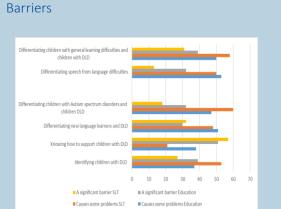   - Subject- verb
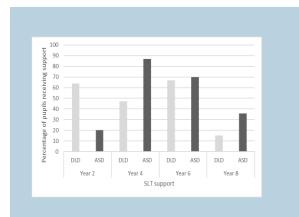   - Complex-syntax

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Needs of professionals and parents

Professionals (UK) - Barriers to practice (Dockrell et al. 2017),

- Lack of Collaboration SLTs/ teachers ■ Lack of Training for school staff
- Lack of Training in relevant areas

Barriers

Denmark

1. Danish challenges?

Denmark – key issues

- Building teacher and school leadership
- **Key developing learning environments**
- Lower than average teaching hours
- Good salaries
- Less guidance on how to improve practice

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Intervention

Quality First

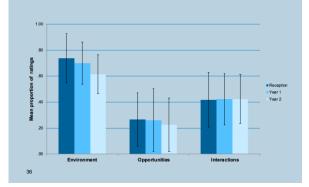- **Language learning environments**
- an environment in which children are exposed deliberately and recurrently to
  - high-quality verbal input among peers and adults and
  - in which adult-child verbal interactions are characterised by high levels of adult responsiveness (Justice, 2004)
  - Captured by 5 key elements
  1. Exposure
  2. Deliberateness
  3. Recurrence
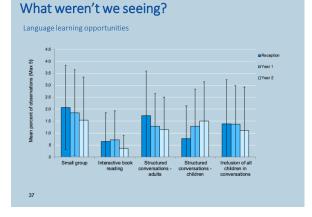 4. High-quality input
  5. Adult responsiveness

Communication supporting classroom tool (CSCOT)

- Captured
  - Language learning environment …
    - » Elements identified as necessary prerequisites to allow teaching and learning e.g. Labelling in classrooms, quiet corners
  - Language learning opportunities …
    - The what of learning e.g. Small group work
  - Language learning interactions …
    - The how of learning e.g. the ways in which staff talk with children

35

Profiling classrooms (N = 102)

36

What weren't we seeing?

Language learning opportunities

37

What weren't we seeing?

Language learning interactions

- 20 evidence based interactions

- Could be recorded a maximum of 5 times in the 45 minute observation

38

- CSCOT

Professional development

- Professional development increases teacher–child engagement in
  - Multi-turn conversations,
  - Child-initiated conversations,
  - Teachers' strategy use.
  - In addition, teacher–child conversations with a high concentration of teacher elicitations and extensions were positively associated with children's vocabulary gains (Cabell et al., 2015)

But Bleses et al., 2017

- real-world effectiveness trial conducted in Denmark
- 6,483 three 3- to 6-year-olds designed to improve children's language and preliteracy skills.
- Children in 144 child cares were assigned to a control condition or one of three planned variations of a 20-week storybook-based intervention
  - a base intervention
  - two enhanced versions featuring extended professional development for educators or a home-based program for parents.
  - Pre- to posttest comparisons revealed a significant impact of all three interventions for preliteracy skills (= .21–.27)
  - but not language skills (d = .04–.16),
  - Fidelity, indexed by number of lessons delivered, was a significant predictor of most outcomes

Why?

Effective targeted interventions

- **Parent support**
  - Successful training parents in disadvantaged areas
    - asked to spend more open ended questions and in narrative conversation
      - » Immediate gain in vocabulary
      - » Narrative improvement one year later
  - Parents children with language delay
    - Successful training in being responsive and less directive
- Dialogic book reading
  - Read books in a way which provides children with multiple opportunities to talk and engage in conversation
  - Adult becomes an active listener, asks questions, adds information and promotes the child's us of descriptive language
    - Need extension activities

  But remember studies have suggested that children in preschool settings, on average, less than 8 minutes a day any reading activity

An example – targeted interventions

Small group activities

- Talking time©
  - Manualized
  - Video material
  - Material to personalize to setting

- Significant improvements in language levels of at risk children
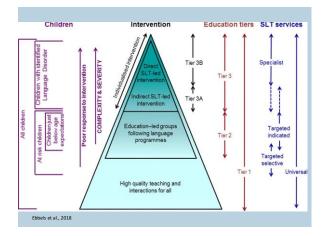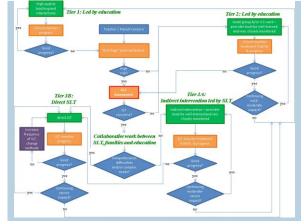
VOCABULARY DEVELOPMENT

STORY TALK

NARRATIVE DEVELOPMENT

Summary

- Inequalities in language development occur as a result of
  - Inequalities in language input
  - Inappropriate input for the child's developmental needs
  - Language status
- Fine tuning can be provided by adults

Ebbels et al., 2018

Role for education at TIER 1 and Tier 2

- Is it there?
- How can it be enhanced?
- What is the role of the SLT/logopaed in Denmark?

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Thank you for your time and attention

Need extra information consult
What works for SLCN
http://www.thecommunicationtrust.org.uk/whatworks