

# **There is a LOT More to Language Disorder than Meets the Eye**

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**SITS Jubilee Congress – 60 years serving the language**

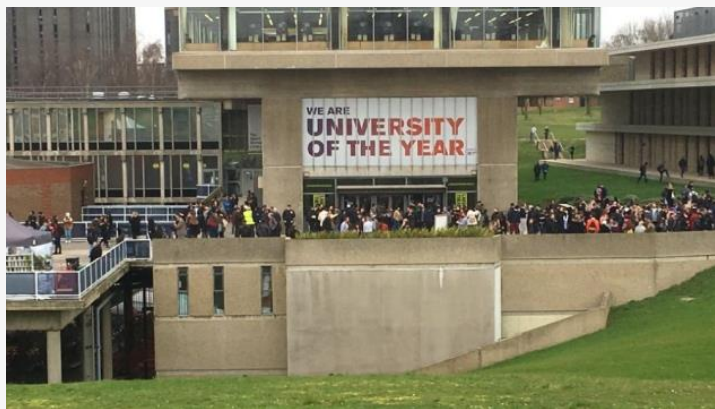




**Gratis**



# Tack för att du bjudit in mig till det här spännande evenemanget



Det är underbart att vara här med er alla



# OUTLINE:

- ❑ The role of oral language as a foundation for a range of essential skills
- ❑ The nature of Language Disorder and differential diagnosis
- ❑ Impact of Language Disorder
- ❑ Longitudinal implications of Language Disorder
- ❑ Implications for Speech and Language Therapy practice









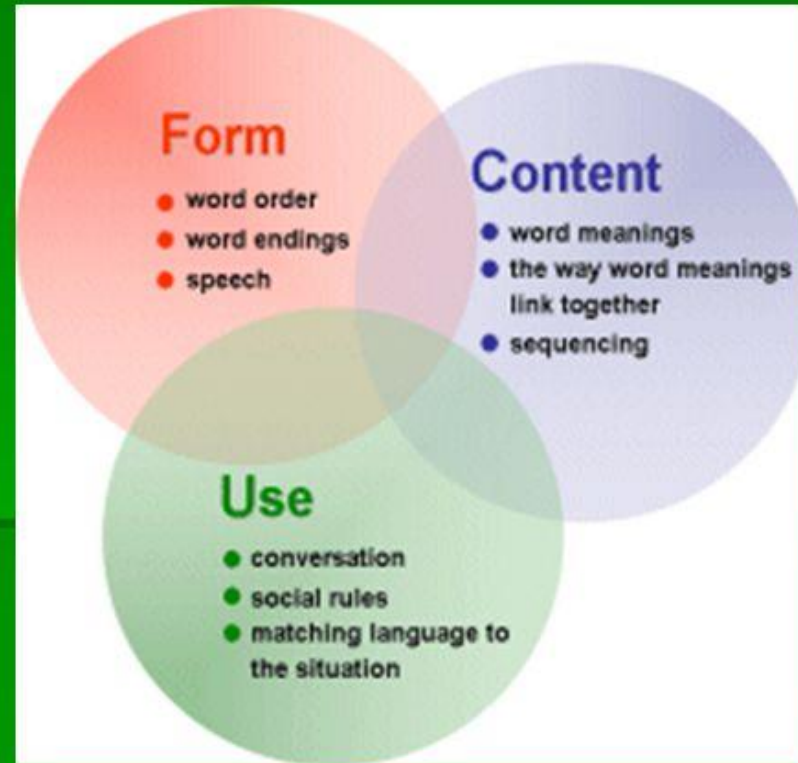
**What is Oral Language?**



# Inter-relationship between language areas

## Bloom and Lahey (1978)

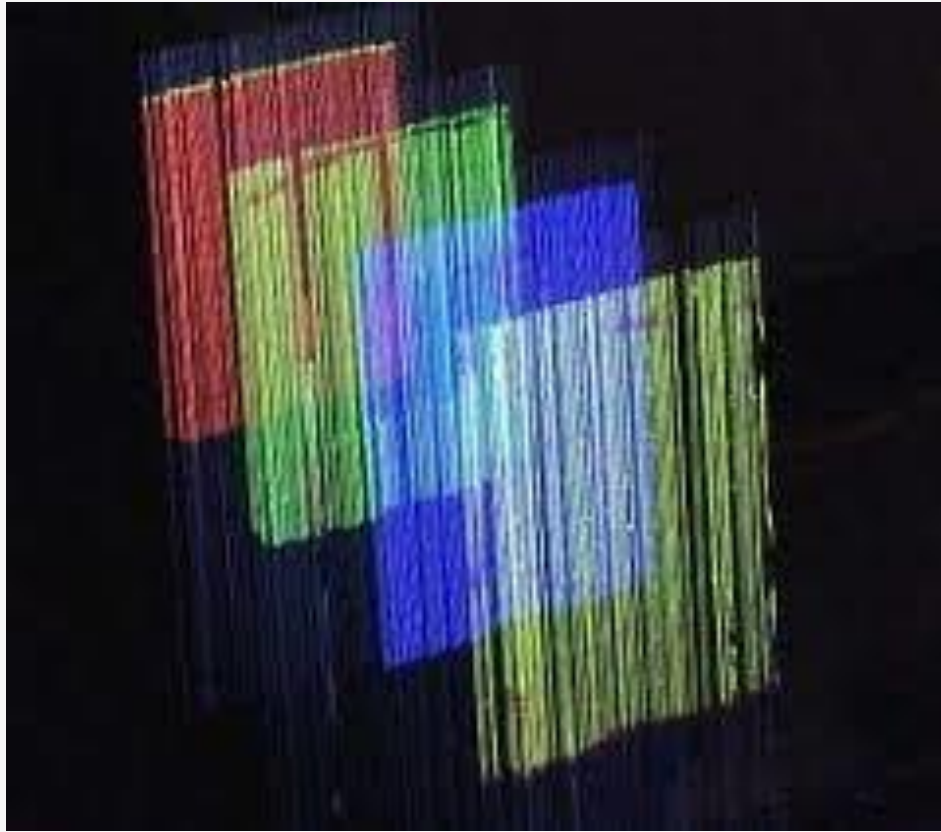
Syntax



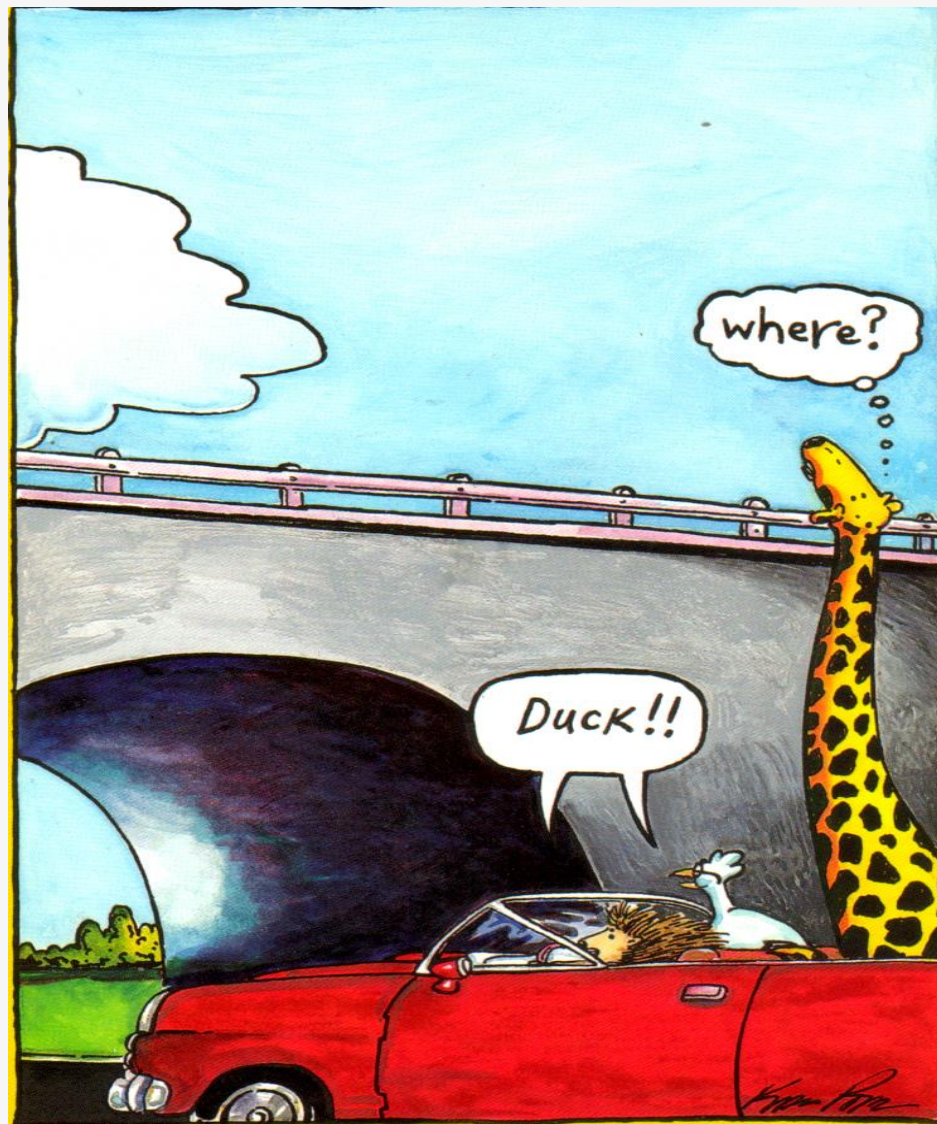
Semantics

Pragmatics











**It's raining cats  
and dogs!**





**Box?**





**Language serves a critical foundation for a range of fundamental skills that we draw upon throughout our lives .**

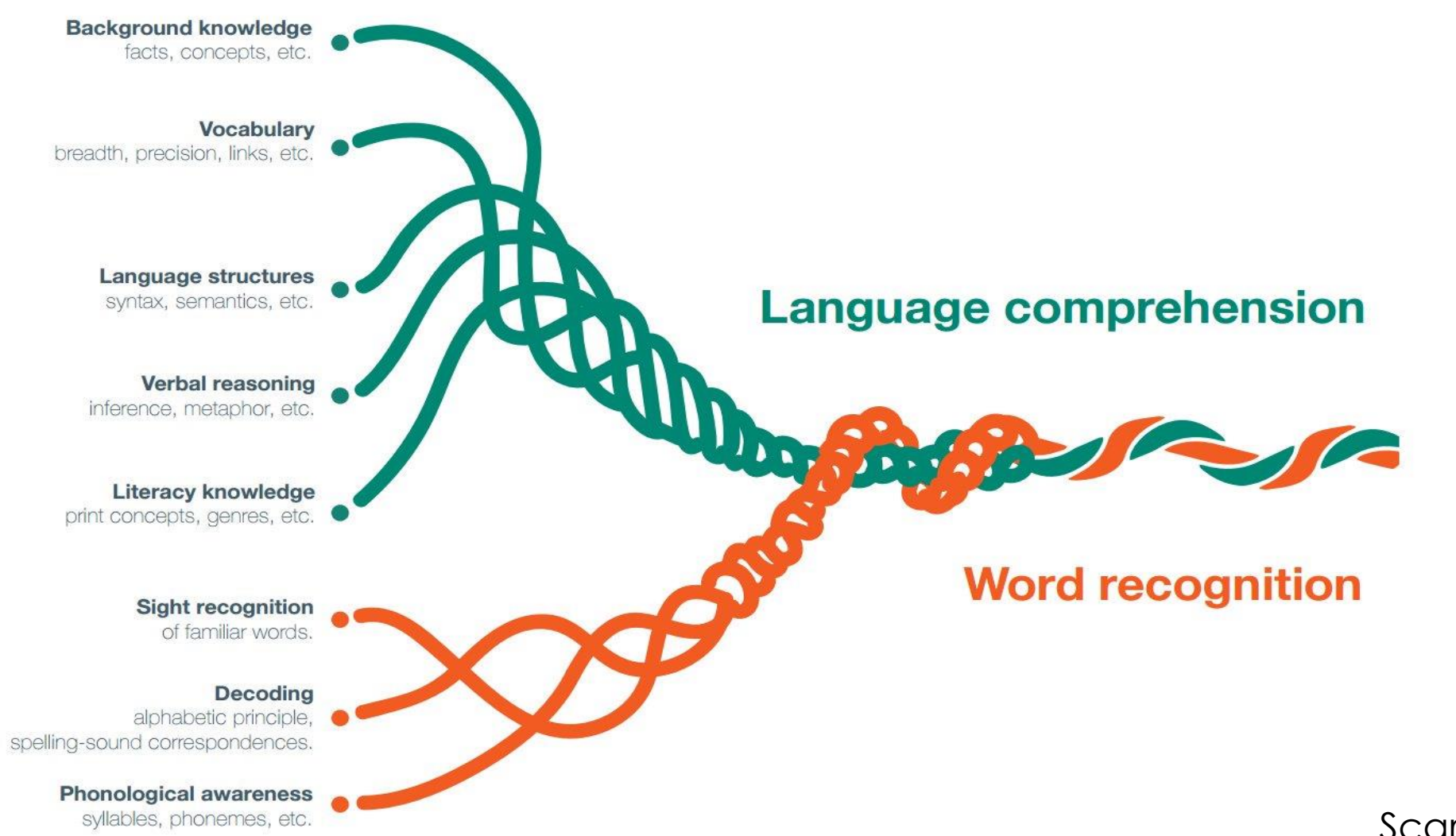
- **Organization**
- **Memory**
- **Executive Functions: predicting, planning, self regulating, perspective taking, empathising, problem solving**
- **Inferencing**
- **Literacy**
- **Emotion processing**
- **Socialization**
- **Social Cognition**





# SKILLED READING:

## Fluent execution and coordination of word recognition and comprehension



Scarborough (2001)



# Employer Survey of Communication Skills

## Top 5 Communication Priorities for Employers

### The employee:

- checks when **confused** (39/53)
- works well in a **team** (31/53)
- is a good **listener** (29/53)
- is able to **adjust** her/his **style of talking** (24/53)
- is friendly and **approachable** (24/53)





# Speech Language and Communication Needs



- ❑ The majority of children develop language **with ease** and without any direct explicit intervention
- ❑ However some children experience **significant difficulties** in developing speech, language & communication
- ❑ These difficulties arise for many different reasons. There is no one manifestation of SLCN – **HETEROGENEOUS**

Children can experience difficulties with the **understanding (reception) and expression of language**.

**BUT** important to remember, students with SLCN may also have difficulties with:

- **Attention and concentration**
- **Organization**
- **Listening**
- **Memory**
- **Executive Functions: predicting, planning, self regulating, perspective taking, empathising, problem solving**
- **Inferencing**
- **Literacy**
- **Behaviour**
- **Social and emotional functioning**
- **Emotion processing**
- **Socialization**



# So what is **Language Disorder**:

- ❑ There has been a lack of agreement about criteria and terminology for children with language difficulties
- ❑ This confusion with terminology has impacted on diagnosis, access to services and research
- ❑ In 2016, an international group of 57 experts (the CATALISE panel) which included Speech Language therapists/Pathologists, Educational Psychologists, paediatricians, psychiatrists, specialist teachers and charity representatives, led by Dorothy Bishop reached a consensus

CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development. (Bishop et al., 2017)

# So what is **Language Disorder**:

- The term '**Developmental Language Disorder**' (DLD) refers to a language disorder that is **NOT** associated with a known biomedical condition, including brain injury, acquired epileptic aphasia in childhood, certain neurodegenerative conditions, genetic conditions such as Down syndrome, cerebral palsy, sensori-neural hearing loss, autism spectrum disorder (ASD) and intellectual disability

CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development. (Bishop et al., 2017)

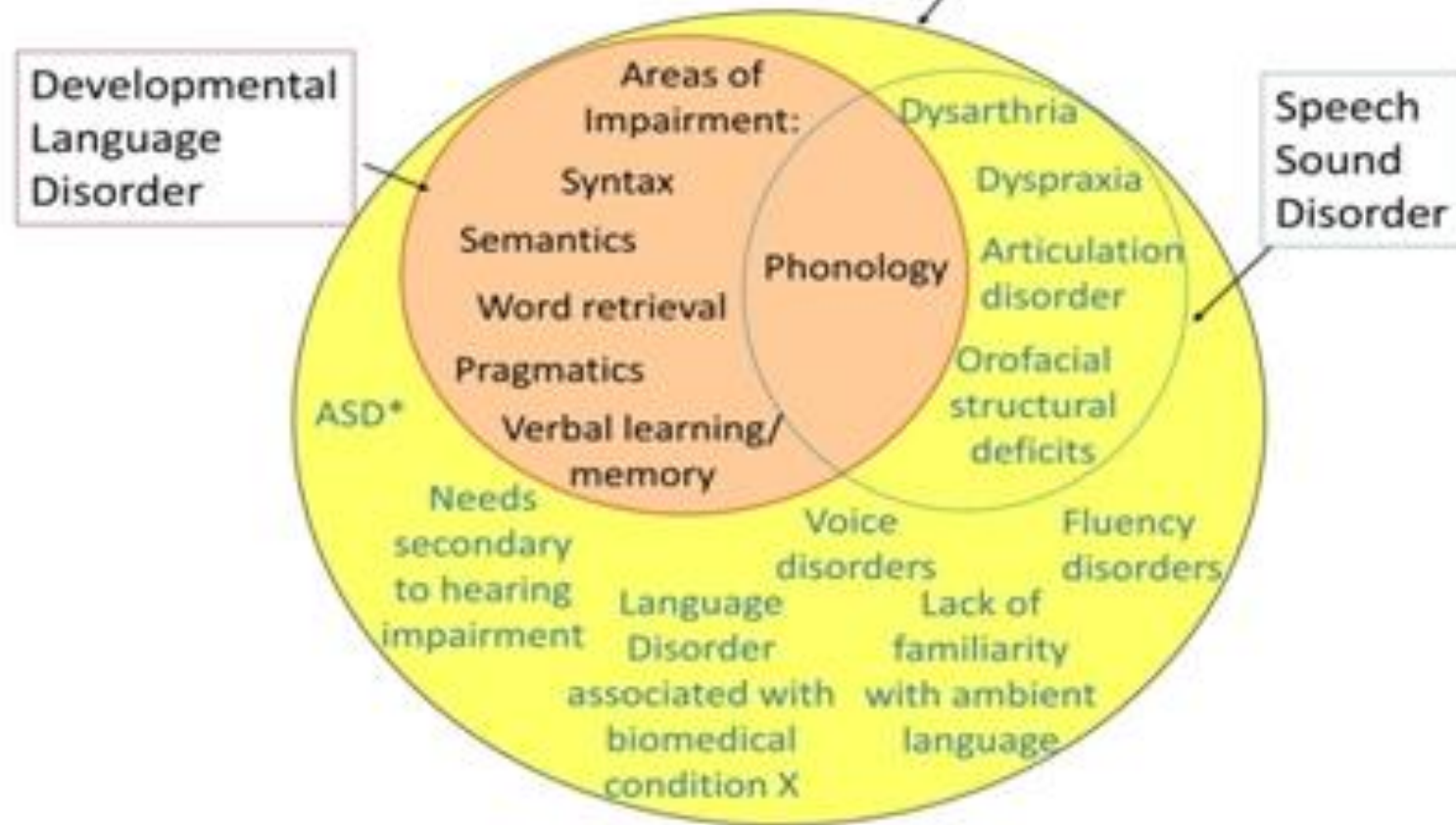


# So what is **Language Disorder**:

- The term '**Language Disorder**' refers to children, that may have other associated conditions, who present with language difficulties that create obstacles to communication or learning in **everyday life** and which we know from research, are **pervasive** and **long term**.

CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development. (Bishop et al., 2017)

## Speech, Language and Communication Needs



\* ASD is sometimes treated as an alternative to, rather than part of, SLCN

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CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development. (Bishop et al., 2017)



# Challenges of Differential Diagnosis



Developmental  
Language  
Disorder/Specific  
Language Impairment



Autism/ASD



Language Disorder



Dyslexia



Emotional  
/Behavioural  
Disorder/Social, Emotional and  
Mental Health

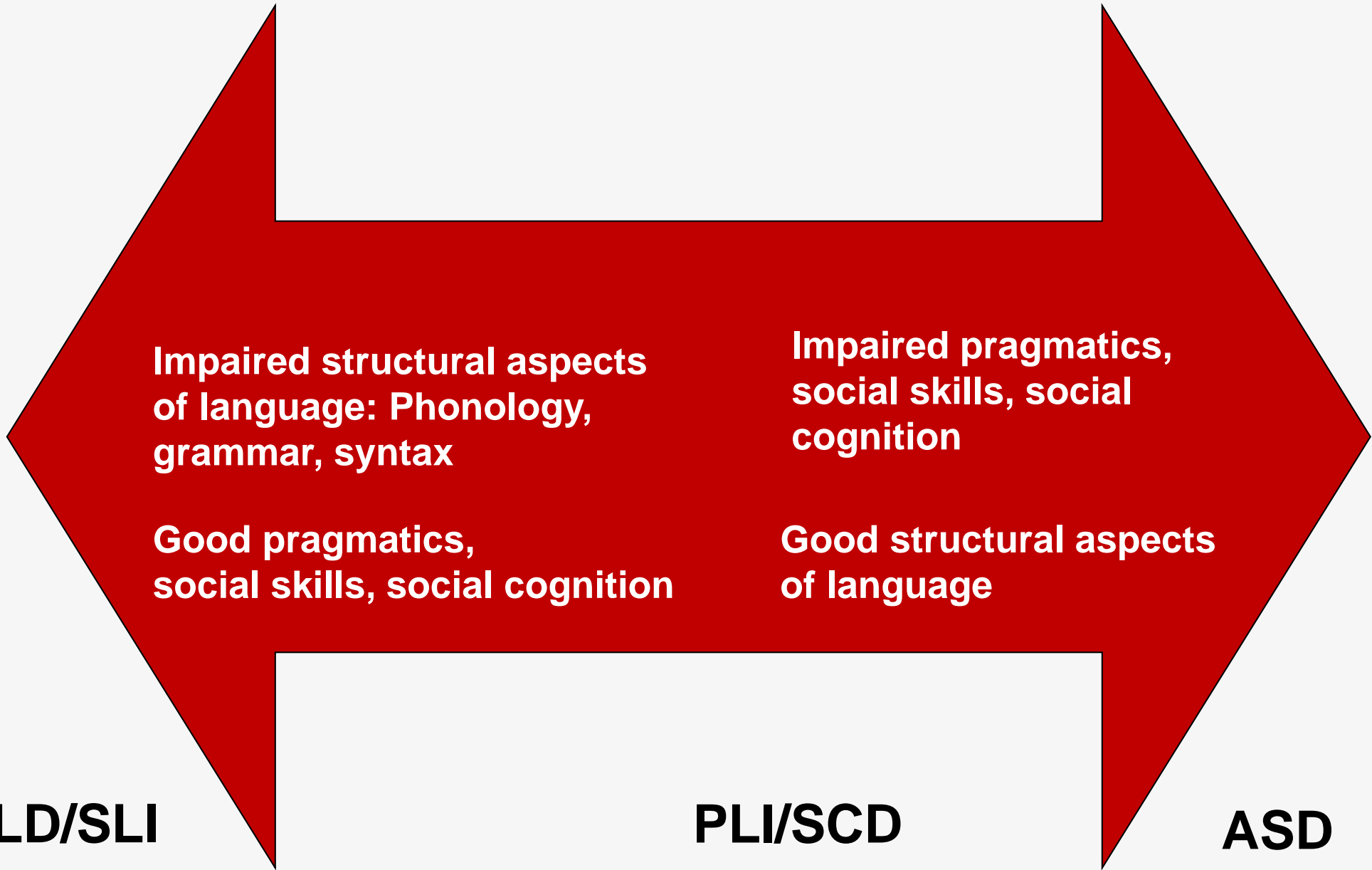
- ❑ Disorders are often co-morbid, and share similarities and have overlapping boundaries
- ❑ Children with **language disorder** have greater **social-emotional** difficulties than their peers
- ❑ Children with LD are also at increased risk for **reading** and **writing** difficulties
- ❑ Continuities between **autism** and **receptive language impairment** become increasingly evident over time (28-year follow up by **Michael Rutter** and colleagues of individuals with severe LI (Howlin et al., 2000; Clegg et al., '05)



- ❑ Individuals with a severe LI showed greater **social impairment** with advancing age
- ❑ There were increasing similarities with age between SLI and autism which arose because the **social and communicative deficits** in the LD group became more manifest
- ❑ It is therefore more helpful to view developmental disorders from a **continuous or dimensional** rather than **categorical** perspective
- ❑ Language skills are dimensional



- ❑ A **dimensional approach** may also be more successful for planning interventions that are functionally significant



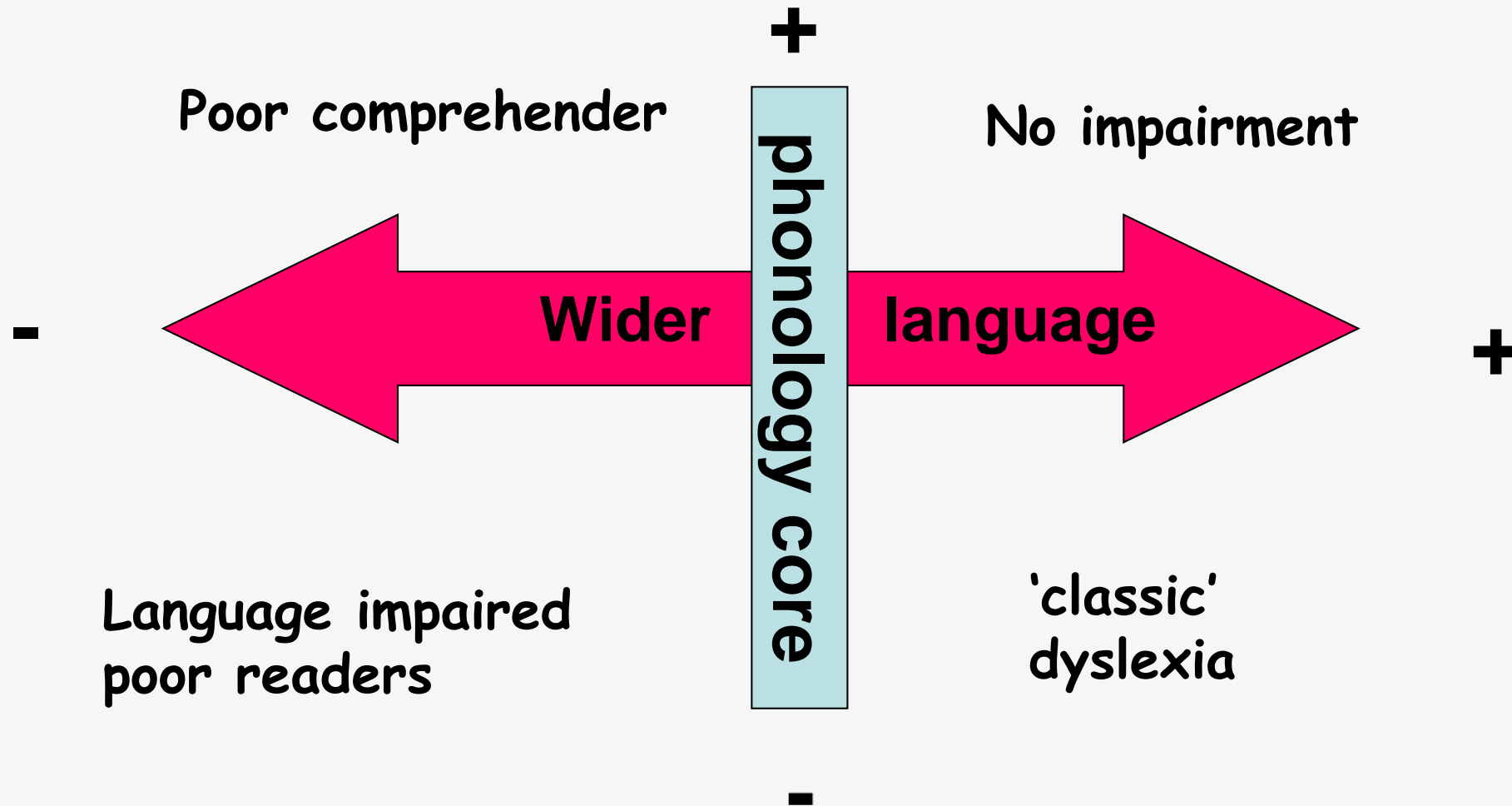
**DLD/SLI**

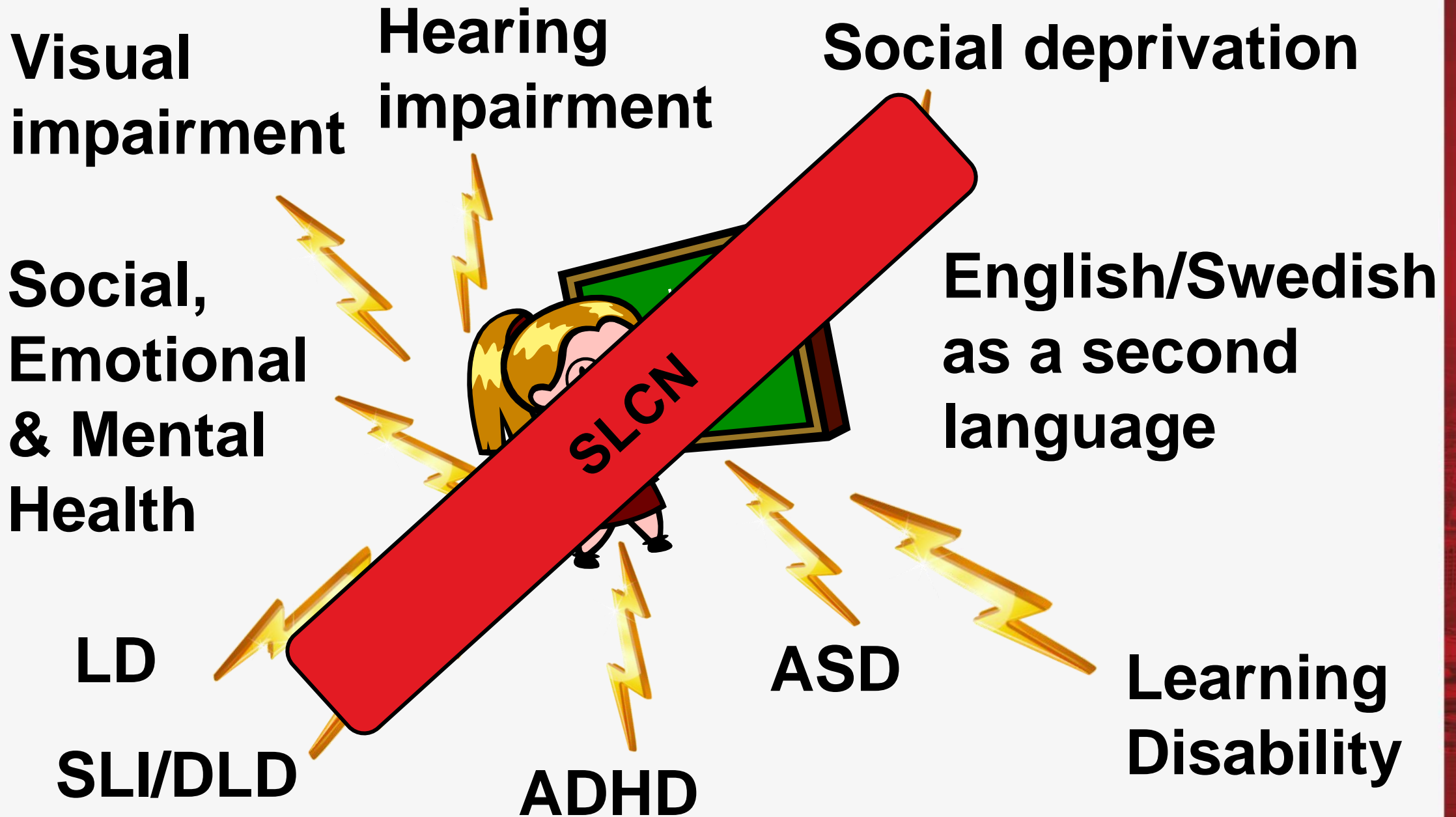
**PLI/SCD**

**ASD**



# Two-dimensional model of dyslexia and SLI (Bishop & Snowling, 2004)







**Speech, language and communication  
difficulties impact on ALL aspects of the  
education curriculum**

**AND**

**the child's overall development:  
academic, physical, social,  
psychological, emotional, vocational**

# What do we know?

- ❑ Studies show that early language and communication impairments do **NOT** disappear
- ❑ SLCN can be **pervasive** and **persist** into adolescence and adulthood
- ❑ They cause problems **accessing all subject areas of the curriculum**
- ❑ These language difficulties can significantly restrict the achievements of students and puts them at risk for **literacy**, **academic**, **social** and **emotional** difficulties



# The Impact of Language Disorder



**Education**

**Empoyment**

## **The Impact of Language Disorder**

**Personal Development**





**Mental Health and Wellbeing**

**Relationships**

## **The Impact of Language Disorder**

**Friendship**



**Quality of Life**

**Economic**

## **The Impact of Language Disorder**

**Financial**

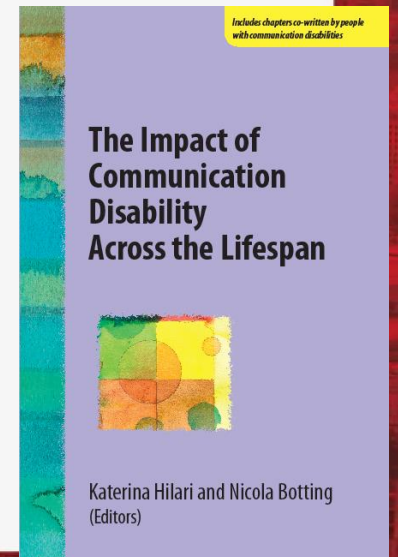




*“I am not a big fan of school. I don’t have a lot of good memories. I think the only good times at school was with art and making textiles. I didn’t have a lot of great friends. And I got bullied in school.*

*I was going to mention about the homework. Because that what I really remember from school. The homework, it just took over my home life - evenings and weekends. And it just didn’t make me socialize, like my friends, they socialized. So they can do their homework in their lunch time but they spent more time socializing when I spent all my time on homework. It just took over. I had to. It was real difficult.”*

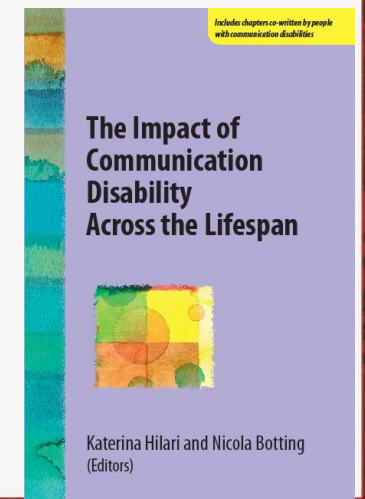
(Abigail Beverly from: Joffe et al, My Speech, Language and Communication – “A real kind of overwhelming kind of challenge sometime.” The impact of Communication Disability across the Lifespan by Hilari and Botting, (2011)



*“There were teachers who did not understand my difficulties*

*When I was in Secondary school in GCSEs we read this book called ‘Things Fall Apart’ by Chinua Achebe. And it was loads of African Nigerian terms and obviously no one could really say them and I hate reading out loud and I was picked to read out loud and I was struggling and the teacher snapped and said, “can someone else just take over”. I wanted to shoot the teacher.”*

(Lavinia Scott from: Joffe et al (2011). **My Speech, Language and Communication** – “A real kind of overwhelming kind of challenge sometime.” The impact of Communication Disability across the Lifespan by Hilari and Botting, 2011)







*help I'm sinking in words (vortex)*

Abigail Beverly, 2011

“I’m not sure whether to stop pursuing things because I now recognize it’s likely to be harder for me, or do it anyway for the fulfilment of trying & hoping to achieve.”

K’s (an adult with DLD) talk to local ASLTIP (SLT) Group, 2017

From Sievers, 2019

“I was working in final placement was in a noisy office environment, I felt I needed to block my ears to read the computer screen but felt this was socially unacceptable, especially as I was new to the team. I blocked my ears for the first time in my last placement...I had bought ear defenders specifically for this noisy office placement but I never dared wear them.

Some of the placement people (junior doctors) talked so fast with so much information I find it very difficult to follow. I was like a rabbit in headlights. I needed to write it down and then I only will remember some of it. I say Can I check with you on that? (e.g. repeat please) and Can I come back to you? . I think they must find me very pedestrian.”

K's talk to local ASLTIP group, 2017

From Sievers, 2019



## Impact of SLCN on...



- ❑ **Literacy:** The relationship between written and oral language is complex but it is well accepted that children with SLCN are at risk for problems in reading (decoding and comprehension) and writing
- ❑ **Learning:** Children with primary SLCN achieve more poorly academically across the curriculum – **NOT** just in English. Since **LANGUAGE** is the tool necessary to learn, children with language difficulties may experience problems in any or all of the curricular subjects

# Matthew Effect in Reading

**The Rich Get Richer and the Poor Get Poorer!**



Stanovich, 1986

# Impact of SLCN on...



- ❑ **Social skills:** Children with SLCN show poorer **self esteem** and **social acceptance** than peers and increased risk of being **bullied** and **victimization**. The development of social skills is closely related to language and communication abilities
- ❑ **Emotional skills:** Emotional intelligence is considered to be largely dependent on language skills
- ❑ **Behaviour:** Behaving appropriately is often dependent on being able to think through problem situations and resolve conflicts, mediated through **language**. Often, **Behaviour = Language**



# Language and Social, Emotional and Behavioural Functioning

- ❑ There is a strong relationship between language and **social, emotional and behavioural difficulties** (SEBD)
- ❑ Two thirds of 7-14 year olds with serious **behaviour problems** have language impairment (Cohen et al 1998)
- ❑ 65% of **young offenders** have SLCN, but in only 5% of cases the SLCN was identified prior to the offence (Bryan et al, 2008).

## Language and Social, Emotional and Behavioural Functioning

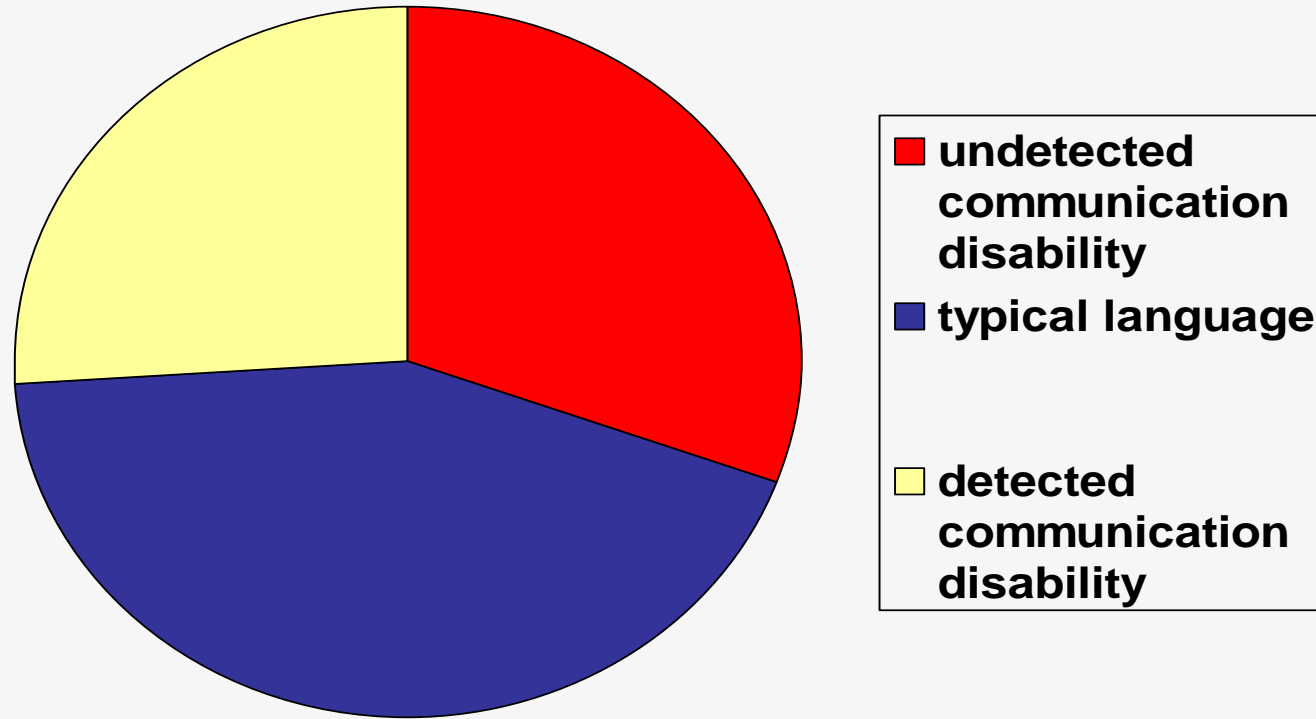
- ❑ Speech and language skills predict **behavior** and **wellbeing**
- ❑ Poor communication is a risk factor for **mental health** and **wellbeing** (Snowling et al, 2006; Law et al., 2017)
- ❑ 40% of 7 to 14 year olds referred to **child psychiatric services** had a language impairment that had never been suspected (Cohen et al, 1998).
- ❑ Good language skills act as a '**protective factor**' which reduces the likelihood of poor school attendance, truancy, delinquency and substance misuse (Snow, 2000).

## Language and Social, Emotional and Behavioural Functioning

- ❑ Two thirds of 7-14 year olds with **serious behaviour problems** have language impairment (Cohen et al 1998)
- ❑ Victims of **bullying** and those who are both bullies and victims are more likely to have had limited early language skills than other children (Gutman and Brown, 2008)
- ❑ Without effective support, a third of children with SLCN need treatment for **mental health problems** (Clegg et al, 1999).
- ❑ Children with SLCN experience **more frequent bullying**, partly because of the way they speak but also because they often lack the skills to **negotiate social situations** (Conti-Ramsden, 2003).

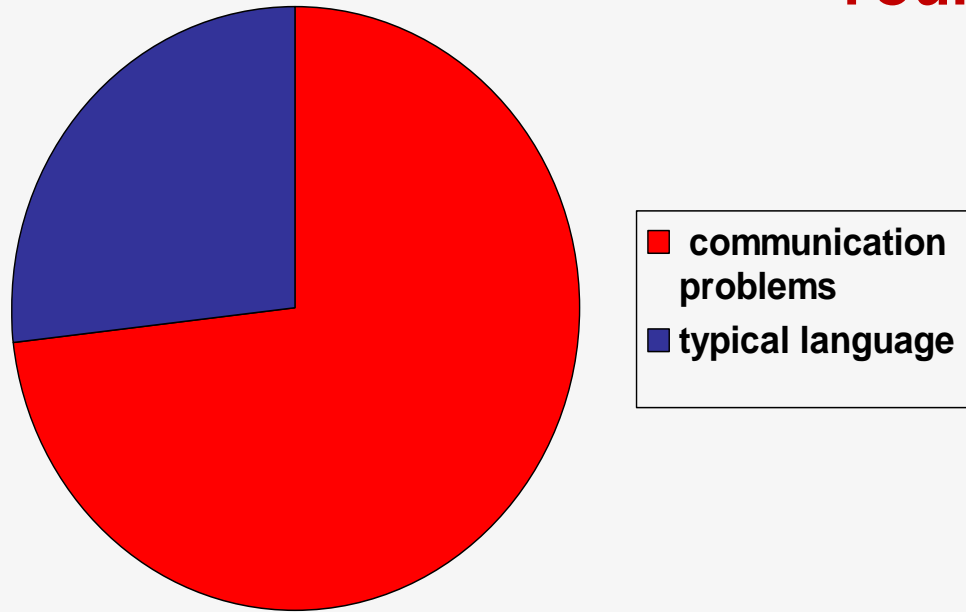


# Children and young people with Behaviour Emotional and Social Disorder



Cohen et al 1998  
(sample=380)

## Young Offenders



Bryan 2004  
(sample =30)

The prevalence rate of language and communication difficulties in **incarcerated young people** is reported to be between 60% and 90% (Hughes et al., 2017)



# Language and Social, Emotional and Behavioural Functioning

- ❑ Poor language and communication skills in school leavers reduces the probability of **getting into employment** (Conti-Ramsden et al., 2017).
- ❑ The changing jobs market means that **communication skills**, along with influencing skills, computing skills, and literacy skills, have shown the greatest increase in **employer-rated importance** over the last 10 years (UK Commission for Employment and Skills, 2010)
- ❑ 47% of employers in England report difficulty in finding employees with an **appropriate level of oral communication skills** (UK Commission for Employment and Skills, 2009).

Adapted from paper prepared by Jean Gross, Communication Champion, 2010



## Language and Social Disadvantage

- ❑ Language skills are a **critical factor in social disadvantage** and in the **perpetuation of poverty** across generations
- ❑ On average a toddler from a family on welfare will hear around **600 words per hour**, with a ratio of two prohibitions ('stop that', 'get down off there') to one encouraging comment. A child from a professional family will hear over **2000 words per hour**, with a ratio of six encouraging comments to one negative (Hart and Risley, 2003).
- ❑ Children from low income families are **16 months in vocabulary** behind children from high income families. This gap is larger than gaps in other cognitive skills (Waldfoegel and Washbrook, 2010).

Adapted from paper prepared by Jean Gross, Communication Champion, 2010

## Language and Social Disadvantage

- ❑ More than half of children starting nursery school in **socially disadvantaged areas** of England have **delayed language** with average cognitive skills (Locke et al, 2002)
- ❑ A survey of two hundred young people in an inner city secondary school found that 75% of them had **speech, language and communication problems** that hampered relationships, behaviour and learning (Sage, 1998)
- ❑ **Looked after children**, particularly those raised by neglectful or abusive parents, have a high risk of speech, language and communication difficulties (Cross, 1999; Clegg and Spencer, 2019).
- ❑ Vocabulary at age 5 has been found to be the **best predictor** (from a range of measures at age 5 and 10) of whether children who experienced social deprivation in childhood were able to **escape this poverty** in later adult life (Blanden, 2006).

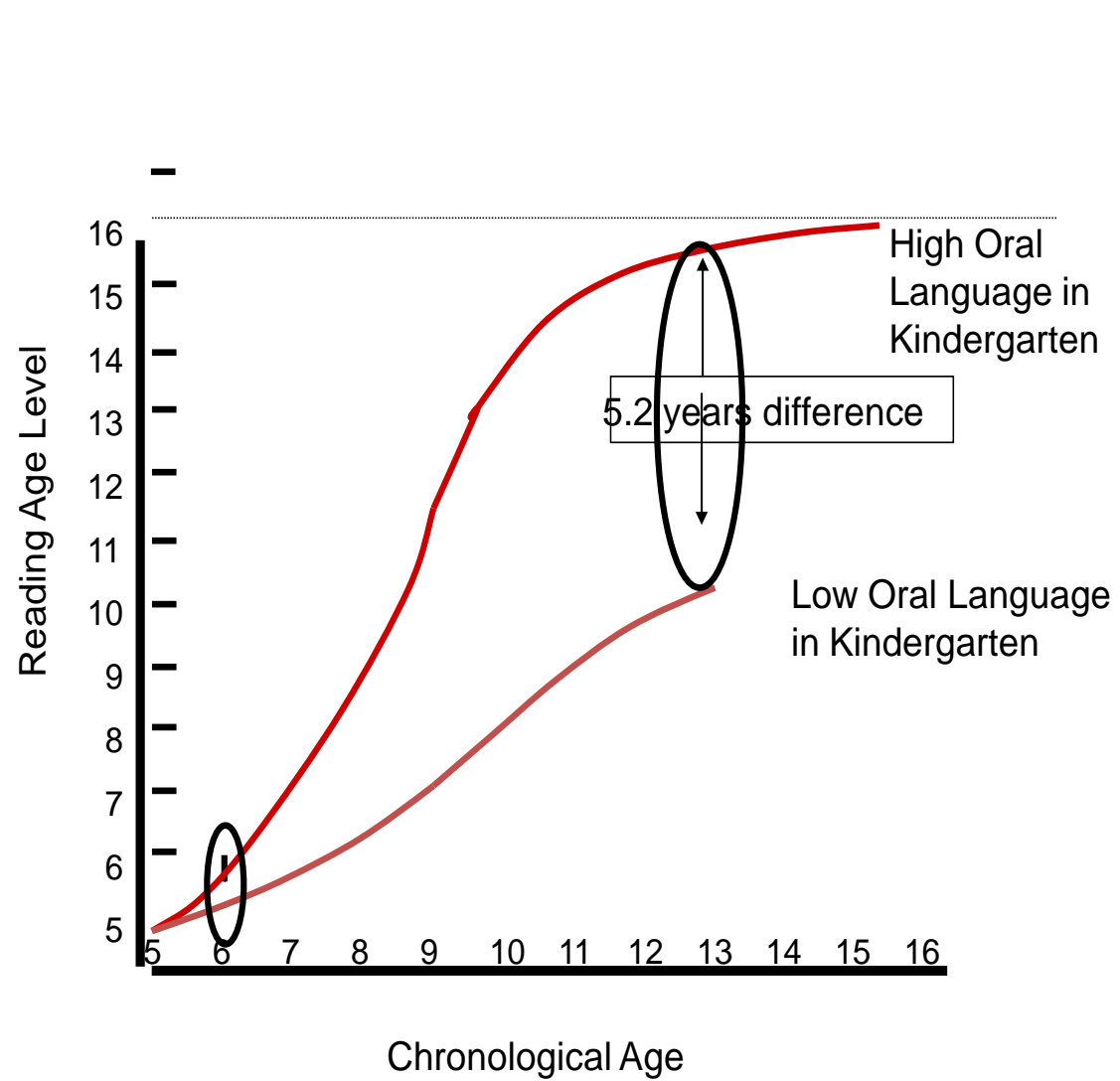
Adapted from paper prepared by Jean Gross, Communication Champion, 2010

## Language and Social Disadvantage

- ❑ We may ask **why poor language** affects the life chances of children from poor income families so dramatically
- ❑ One reason may be because **poor language has been found to predict literacy skills**. Early speech, language and communication difficulties are a very **significant predictor** of later literacy difficulties (Snowling et al 2006).
- ❑ At the age of six there is a **gap of a few months** between the reading age of children who had good oral language skills at 5 years, and those with poor oral language skills at 5 years. By the time they are 14, this gap has widened to **five years'** difference in reading age (Hirsch, 1996)



Hirsch, 1996



# WORD GAP BY AGE 3

MAKE • MAN • MANY • MAY • ME • MEN • MILK • MONEY • MORNING • MOTHER • MOMMY  
A • ABOUT • AFTER • ALL • ALWAYS • AM • AN • AND • ANY • APPLE • ARE • AROUND  
MUCH • MUST • MY • MYSELF • NAME • NEST • NEVER • NEW • NIGHT • NO • NOT  
ASK • ATE • BACK • BE • BEAR • BECAUSE • BED • BEEN • BEFORE • BELL • BEST  
BETTER • BIG • BIRD • BIRTHDAY • BLACK • BLUE • BOAT • BOTH • BOX • BOY  
BREAD • BRING • BROTHER • BROWN • BUT • BUY • BY • CAKE • CALL  
RAIN • RAN • READ • RED • RIDE • RIGHT • RING • ROBIN • ROUND  
CAN • CAR • CARRY • CAT • CHAIR • CHICKEN • CLEAN • COAT  
CORN • COULD • COW • CUT • DADDY • DAY • DID • DOES  
DOG • DOLL • DONE • DON'T • DOOR • DOWN • DRAW  
DRINK • DUCK • EAT • EGG • EIGHT • EVERY • EYE  
FIND • FIRE • FIRST • FISH • FIVE • FLOOR  
RUN • SAID • SAW • SAY • SCHOOL • SEE  
FLOWER • FLY • FOR • FOUND • FOUR  
GIRL • GIVE • GO • GOES • GOING  
GOOD • GOOD-BYE • GOT • HAD  
HAND • HAS • HAVE • HEAD  
HELP • HER • HERE • HILL  
HIM • HIS • HOLD • HOT  
HOUSE • HOW • HURT  
IF • IN • INTO • IS  
IT • ITS • JUMP



[RALLY4BABIES.ORG](http://RALLY4BABIES.ORG)

ON AVERAGE

ECONOMICALLY **ADVANTAGED** CHILDREN KNOW

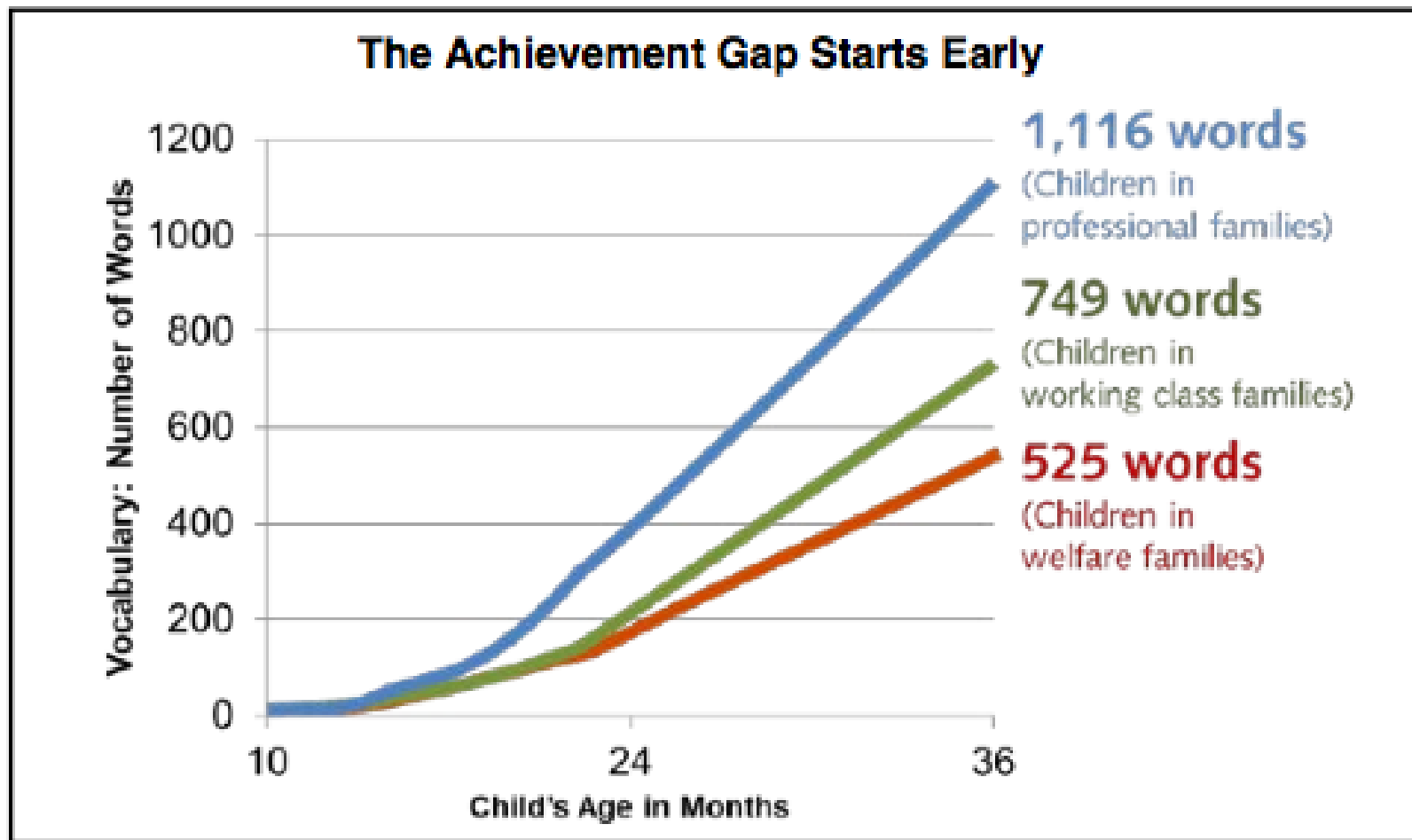
**1100** WORDS

ECONOMICALLY **DISADVANTAGED** CHILDREN KNOW

**500** WORDS

SOURCE: ADAPTED FROM BETTY HART AND TODD R. RISLEY, *MEANINGFUL DIFFERENCES IN THE EVERYDAY EXPERIENCE OF YOUNG AMERICAN CHILDREN* (BALTIMORE, MD: PAUL; H. BROOKES, 1995).





Figurelli, 2015,

<http://inservice.ascd.org/the-matthew-effect/>



## Language is an important child wellbeing indicator

**“ Early language acquisition impacts on all aspects of young children’s non-physical development.** It contributes to their ability to **manage emotions** and **communicate feelings**, to **establish** and **maintain relationships**, to **think symbolically**, and to **learn to read and write**.

We believe the fundamental link between language and other social, emotional and learning outcomes makes **early language development a primary indicator of child wellbeing.**”

Law et al., 2017, p. 5, <https://www.eif.org.uk/files/pdf/language-child-wellbeing-indicator.pdf>

# Longitudinal implications of language impairment?

- ❑ Language impairments are often **persistent** and **pervasive**
- ❑ Children with SLI are at increased risk for **literacy and academic** difficulties, both **decoding** and **comprehension** (Bishop and Adams, 1990; Catts, 1993; Joffe, 1998; Dockrell & Lindsey, 2000; Snowling et al, 2000; Catts et al., 2001; Clegg et al, 2005)
- ❑ They continue to have significant **language** difficulties into **adolescence and adulthood** (Hall & Tomblin, 1978; Aram et al., 1984; Beitchman et al., 1996; Stothard et al., 1998; Conti-Ramsden et al., 2001; Clegg et al., 2005 )

- ❑ They show lower **self perception, self esteem, confidence** (Dockrell & Lindsey, 2000; Lindsey et al, 2002; Durkin et al., 2017)
- ❑ They show higher incidence of long-term **behavioural and social difficulties** (Botting et al., 2000); and reported difficulties making friends (Clegg et al., 2005; Lyons & Roulstone, 2016; 2018).
- ❑ Few studies have followed up **vocational outcomes** high dismissal from work and high incidence of manual and unskilled labour (Clegg et al, 2005; Conti-Ramsden et al., 2017))



# Long term seminal longitudinal studies of pre-schoolers with speech, language and communication needs



**Michael Rutter** and colleagues report on a landmark 28-year follow up of individuals with an early diagnosis of severe language impairment and autism.



**Michael Rutter** and colleagues report on a landmark 28-year follow up of individuals with an early diagnosis of severe LI.

Their findings show (Howlin et al., 2000); (Clegg et al., 2005):

- ❑ By the time that they reach adulthood, individuals with a severe LI show even **more social impairment** than they did in middle childhood
  
- ❑ Mean scores on receptive vocabulary at age 36 was at the 12-year level



- ❑ As social demands increased with age, **social deficits** became more apparent
- ❑ At the 36-year follow-up, the average reading level was about **9 years**
- ❑ There were increasing similarities with age between SLI and autism which arose because the **social and communicative deficits** in the SLI group became more manifest
- ❑ The SLI group showed '**theory of mind**' deficits that were similar to those seen in individuals of normal IQ with autism

Journal of Child Psychology and Psychiatry, 46, 128–149.

**Conti Ramsden** and colleagues followed up children with SLI in the Manchester Language Study



**Conti-Ramsden and Durkin** (2008) conducted an interesting study to explore **behavioural independence** in young people, as this is a key element of adolescent development.

- ❑ The study explores the impact of **language ability** on **independence**.

- ❑ They report data from a longitudinal and follow-up study of 120 adolescents with a history of specific language impairment (SLI), as well as from a cross sectional study of a comparison group of 118 typically developing (TD) young people



- ❑ Parental and self-report measures were used to examine **independent functioning** related to everyday living at the end of compulsory education (16 years of age)
- ❑ Results showed that adolescents with SLI are **less independent** than their TD peers
- ❑ level of independence is associated with **poor early language** and **poor later literacy skills – vicious cycle**
- ❑ They concluded that **language and literacy** play a larger role in **adolescent independent functioning** than nonverbal abilities in both TD adolescents and adolescents with SLI.

**Durkin et al., (2017):** as part of the Manchester Language Study, explored **social confidence** in early adulthood in young people with and without a history of language disorder.

- ❑ They assessed **self-esteem**, **shyness** and **social self efficacy** in young people with a history of LD and a group of age-matched peers at 17 and 24 years of age.

- ❑ Results showed that participants with LD scored **lower than controls on self-esteem and self efficacy**, and **higher on shyness**.
- ❑ **Language ability** in adolescence **predicted shyness** in young adulthood, and **shyness** was negatively associated with **self-esteem**. A direct association between **language ability** in adolescence and **self-esteem** in young adulthood was also found.
- ❑ Young people with a history of LD are more likely to be **less socially confident** than their peers in adulthood, and interventions should focus on **increasing social confidence**.



**Conti-Ramsden et al** (2017) in another study with the same cohort, explored the **employment outcomes** for Young Adults with DLD.

❑ Young People with a history of DLD more commonly have **less skilled employment** and more rarely achieve **professional roles**.

❑ At the individual level there is **considerable variation** with smaller proportions of young adults with a history of DLD showing good educational and employment outcomes.

❑ There are positive aspects to early adult outcomes for some young people with a history of DLD

**Johnson et al (2010)** recently reported a 20-year follow up of a group of children with language impairments



**Johnson et al (2010)** recently reported a 20-year follow up of a group of children with language impairments

The aims of this study were to:

- ❑ profile the family, educational, occupational, and quality of life outcomes of young adults at 25 years of age ( $N = 244$ ) from the Ottawa Language Study, a 20-year, prospective, longitudinal study of a community sample of individuals with ( $n = 112$ ) and without ( $n = 132$ ) a history of early speech and/or language impairments
- ❑ to use data from earlier phases of the study to **predict important, real-life outcomes** at age 25.



## Results of the study include:

- ❑ At age 25, young adults with a history of language impairments showed **poorer outcomes in multiple domains** (communication, cognitive/academic, educational attainment, and occupational status) than their peers without early communication impairments and those with early speech-only impairments
- ❑ However, those with language impairments did not differ in **subjective perceptions of their quality of life** from those in the other 2 groups

❑ Objective outcomes at age 25 were **predicted differentially by various combinations of multiple, interrelated risk factors**, including poor language and reading skills, low family socioeconomic status, low performance IQ, and child behavior problems

❑ **Subjective well-being**, however, was primarily associated with **strong social networks** of family, friends, and others.

American Journal of Speech-Language Pathology • Vol. 19 • 51–65 •



Enhancing Language and  
**Communication**  
in Secondary Schools



## Snapshot of ELCISS 2 study where **Literacy** was explored:

- ❑ 69 students with a mean age of 12.4 (SD: 9.7) years were recruited from four mainstream secondary schools in an outer London region
- ❑ Teaching staff selected students with poor language and/or educational attainment
- ❑ **Less than 10%** of these students were receiving speech and language therapy support.



<b>LANGUAGE</b>	<b>Mean (SD); Average= 10 (SD = 3)</b>
Clinical Evaluation of Language Fundamentals (CELF) Recalling sentences	<b>5.4 (3.1)</b>
CELF Listening to paragraphs	<b>4.0 (2.7)</b>
<b>LITERACY</b>	<b>Mean (SD) Av = 100; SD = 15</b>
Wechsler Individual Achievement Test (WIAT) - Word Reading	<b>85.8 (13.2)</b>
WIAT Pseudo-word reading	<b>82.9 (15.3)</b>
WIAT Reading Comprehension	<b>81.6 (15.8)</b>
WIAT Reading Composite	<b>80.9 (14.6)</b>

## STUDENT PROFILES


- ❑ 351 secondary school students with mean age of **12.08** years
- ❑ Male : Female 226:132 (**63% : 37%**)
- ❑ Only **3.4%** of this group have a Special Educational Needs statement, i.e. a **legal requirement for additional specialist support**
- ❑ **60%** - scored below average in the English class-based test
- ❑ **40%** - scored low average in the English class-based test





# Non verbal abilities

Wechsler Intelligence Scale Subtests	Standard scores (mean = 10, SD = 3)
Picture Completion	8.2 (2.6)
Picture Arrangement	7.5 (3.6)
Block Design	7.1 (3.1)
Coding	8.5 (2.9)
Digit Span	8.5 (2.7)



# Language abilities

## Understanding Vocabulary – single word level

### British Picture Vocabulary Scale

Standard scores (average = 100, SD = 15)

85.1 (12.3) range: 44-144

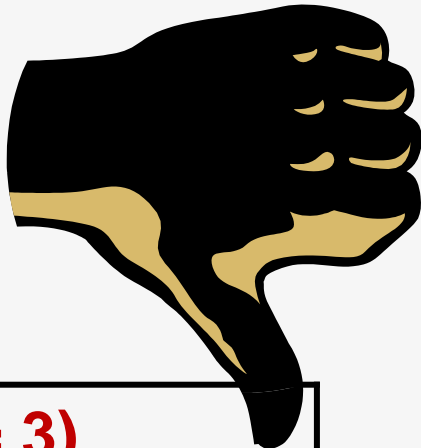
**Test of Word Knowledge (TOWK)** receptive vocabulary average = 10, SD = 3:

7.5 (2.2)

8-17



# Language abilities



<b>Expressive Language (average = 10, SD = 3)</b>		
<b>Test of Word Knowledge –</b> expressive vocabulary	5.7 (1.7)	range: 3-13
<b>Clinical Evaluation of</b> <b>Language Fundamentals –</b> Recalling Sentences	6.3 (2.8)	1-15
<b>CELF - Formulated Sentences</b>	6.0 (3.0)	1-14



# Language abilities



## Multiple Meanings/Figurative Language (average = 10, SD = 3)

<b>Test of Word Knowledge – multiple contexts</b>	6.1 (2.1)	3-12
<b>TOWK – figurative language</b>	6.1 (1.8)	3-13

## Social, Emotional and Behavioural Functioning

- ❑ We used **Strengths and Difficulties Questionnaire** (SDQ: Goodman, 1997) SEB functioning
- ❑ The questionnaire is aimed at **4-16 year olds** and is one of the few measures of this type with **norms for adolescence**
- ❑ The questionnaire can be completed by **all informants**, namely the young people themselves (from age 11 onwards), the parents and the teachers.

## Social, Emotional and Behavioural Functioning

□ The SDQ has twenty-five questions that are divided into five clinical scales:

- **Hyperactivity:** This scale has 5 questions relating to overactive behaviour, impulsivity, and attention span.
- **Emotional symptoms:** This scale has 5 questions probing how often the student feels worry, tearful, nervous, clingy and scared amongst others
- **Conduct problems:** 5 questions related to temper, obedience, fighting, telling lies or cheating and stealing



## Social, Emotional and Behavioural Functioning

- **Peer relationship problems:** 5 questions probing whether a student ever feels: solitary/ alone, liked/ picked on by other children or whether they get on better with adults than children
- **Prosocial behaviour:** This scale probes at positive behaviours and aims to capture information about whether the child: shares readily, is caring when others are ill, is considerate of other peoples feelings, and volunteers to help people
- **Impact Scale:** the impact the difficulty has on everyday life

## Social, Emotional and Behavioural Functioning

- ❑ Each question has a statement such as 'I have more than one good friend' for which the rater marks 'not true', 'somewhat true' or certainly true'
- ❑ The score ranges between 0 to 10 for each scale. This score can be compared to the norms to indicate whether the score falls in the '**normal**', '**borderline**' or '**abnormal**' range
- ❑ Goodman states that up to 80% of the population will fall in the 'normal' range for any one scale, 10% will be 'borderline' and 10% 'abnormal'

## Borderline Abnormal

## Abnormal

	<b>STUDENT</b> (N = 348)		
<b>Emotional</b>	<b>9%</b>	<b>13%</b>	★
<b>Conduct</b>	<b>14%</b>	<b>24%</b>	★
<b>Hyperactivity</b>	<b>12%</b>	<b>27%</b>	★
<b>Peer</b>	<b>11%</b>	<b>7%</b>	
<b>Total Difficulties</b>	<b>20%</b>	<b>16%</b>	★
<b>Pro Social Behaviour</b>	<b>8%</b>	<b>6%</b>	



## Borderline Abnormal

## Abnormal

	STUDENT (N = 348)			PARENT (N = 226)		
Emotional	9%	13%	★	13%	26%	★
Conduct	14%	24%	★	11%	24%	★
Hyperactivity	12%	27%	★	12%	24%	★
Peer	11%	7%		14%	22%	★
Total Difficulties	20%	16%	★	14%	23%	★
Pro Social Behaviour	8%	6%		2%	5%	

## Borderline Abnormal

## Abnormal

	<b>STUDENT</b> (N = 348)	<b>PARENT</b> (N = 226)	<b>TEACHER</b> (N = 232)
<b>Emotional</b>	9% <b>13%</b> ★	13% <b>26%</b> ★	9% <b>9%</b>
<b>Conduct</b>	14% <b>24%</b> ★	11% <b>24%</b> ★	12% <b>21%</b> ★
<b>Hyperactivity</b>	12% <b>27%</b> ★	12% <b>24%</b> ★	3% <b>32%</b> ★
<b>Peer</b>	11% <b>7%</b>	14% <b>22%</b> ★	10% <b>16%</b> ★
<b>Total Difficulties</b>	20% <b>16%</b> ★	14% <b>23%</b> ★	17% <b>24%</b> ★
<b>Pro Social Behaviour</b>	8% <b>6%</b>	2% <b>5%</b>	25% <b>25%</b> ★

## Borderline Abnormal

## Abnormal

	<b>STUDENT</b> (N = 348)	<b>PARENT</b> (N = 226)	<b>TEACHER</b> (N = 232)
<b>Emotional</b>	9% <b>13%</b> ★	13% <b>26%</b> ★	9% <b>9%</b>
<b>Conduct</b>	14% <b>24%</b> ★	11% <b>24%</b> ★	12% <b>21%</b> ★
<b>Hyperactivity</b>	12% <b>27%</b> ★	12% <b>24%</b> ★	3% <b>32%</b> ★
<b>Peer</b>	11% <b>7%</b>	14% <b>22%</b> ★	10% <b>16%</b> ★
<b>Total Difficulties</b>	20% <b>16%</b> ★	14% <b>23%</b> ★	17% <b>24%</b> ★
<b>Pro Social Behaviour</b>	8% <b>6%</b>	2% <b>5%</b>	25% <b>25%</b>



## Borderline Abnormal

## Abnormal

	STUDENT (N = 348)	PARENT (N = 226)	TEACHER (N = 232)
Emotional	9% 13% ★	13% 26% ★	9% 9%
Conduct	14% 24% ★	11% 24% ★	12% 21% ★
Hyperactivity	12% 27% ★	12% 24% ★	3% 32% ★
Peer	11% 7%	14% 22% ★	10% 16% ★
Total Difficulties	20% 16% ★	14% 23% ★	17% 24% ★
Pro Social Behaviour	8% 6%	2% 5%	25% 25% ★

## Borderline Abnormal

## Abnormal

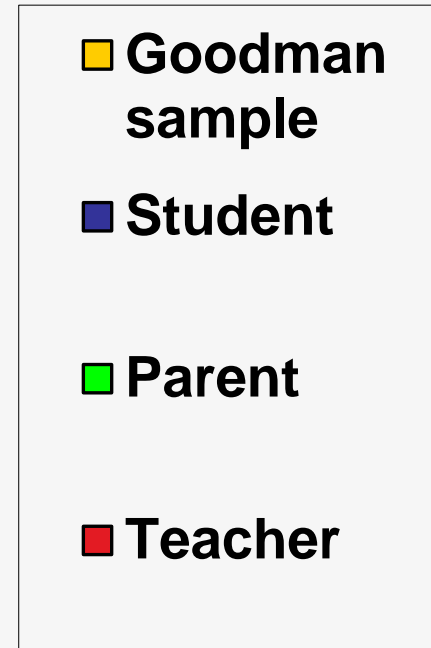
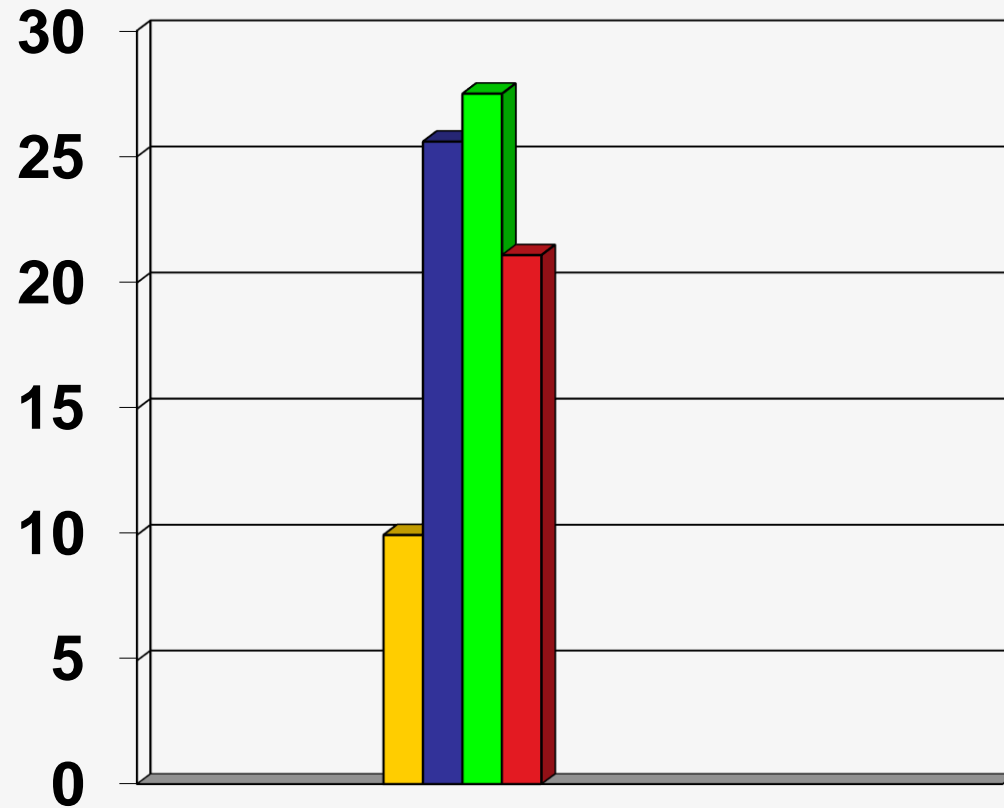
	STUDENT (N = 348)	PARENT (N = 226)	TEACHER (N = 232)
Emotional	9% 13% ★	13% 26% ★	9% 9%
Conduct	14% 24% ★	11% 24% ★	12% 21% ★
Hyperactivity	12% 27% ★	12% 24% ★	3% 32% ★
Peer	11% 7%	14% 22% ★	10% 16% ★
Total Difficulties	20% 16% ★	14% 23% ★	17% 24% ★
Pro Social Behaviour	8% 6%	2% 5%	25% 25% ★

## Borderline Abnormal

## Abnormal

	STUDENT (N = 348)	PARENT (N = 226)	TEACHER (N = 232)
Emotional	9% 13% ★	13% 26% ★	9% 9%
Conduct	14% 24% ★	11% 24% ★	12% 21% ★
Hyperactivity	12% 27% ★	12% 24% ★	3% 32% ★
Peer	11% 7%	14% 22% ★	10% 16% ★
Total Difficulties	20% 16% ★	14% 23% ★	17% 24% ★
Pro Social Behaviour	8% 6%	2% 5%	25% 25% ★





**Impact**

# The prevalence and nature of speech, language and communication needs in long-term unemployed adults: a role for the speech and language therapist?

**Joffe and Wallinger, 2019**



# Why do speech, language and communication skills matter in adulthood?



They are important because being able to communicate competently is essential to **wellbeing** and is key to **securing and sustaining employment** (Ehren and Murza, 2010; ICAN, 2017).



# Aims



- ❑ To investigate the **self-rated** prevalence of **speech, language and communication needs** in a group of **young people** and **older adults** who have been unemployed for **6 months or more**
- ❑ To investigate the **nature** of any self-reported **SLCN**

# Methods

Recruited 149 long-term unemployed adults  
(18 – 64 years)



From a provider of UK employability services



‘The Communication Checklist – Self Report’ (Bishop et al., 2009)

Language Structure

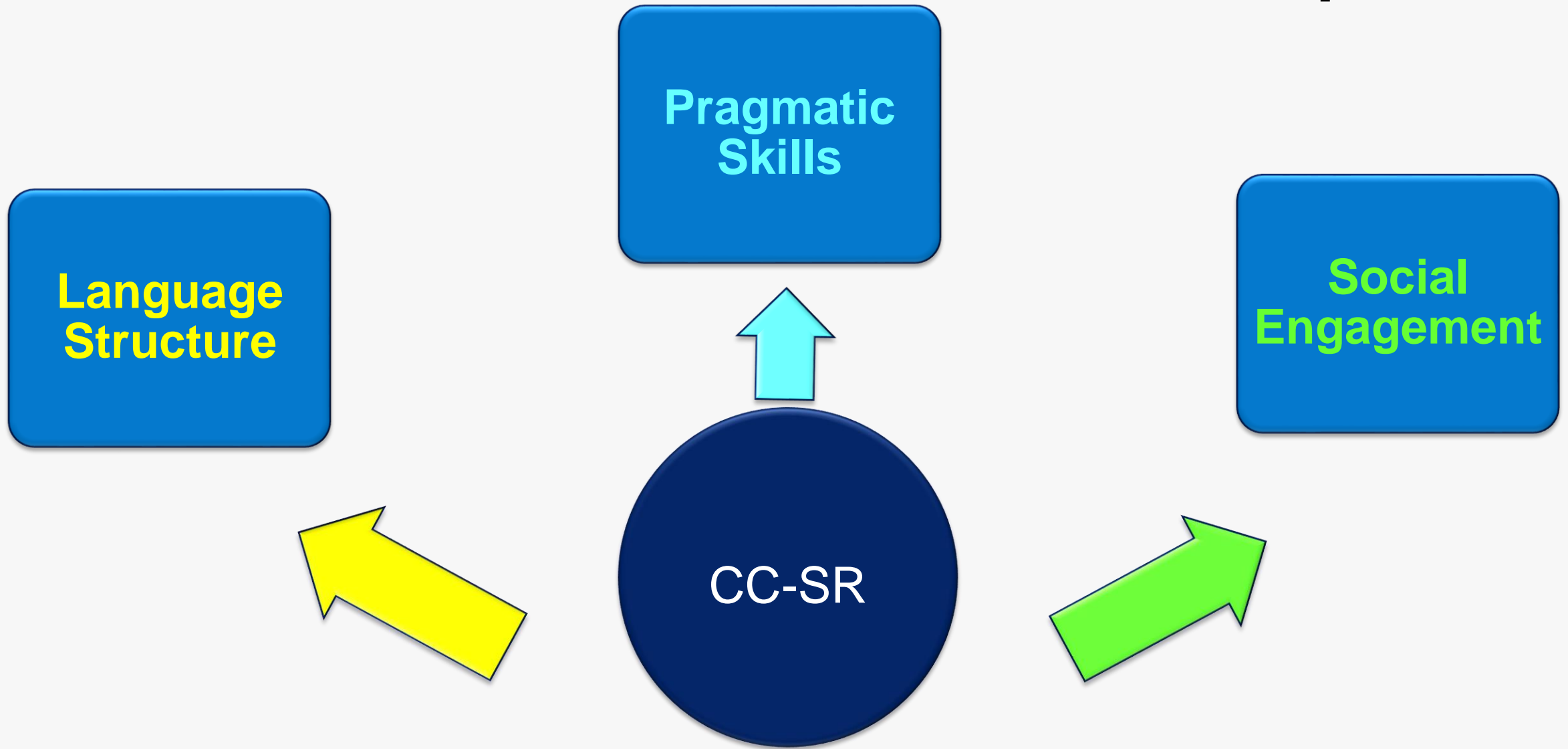
Pragmatic Skills

Social Engagement



Quantitative data collected

# The Communication Checklist – Self Report





# Language Structure Composite

Primarily investigates speech, grammar and semantics (the meanings of words)

**“I make mistakes saying long words.”**

**“People tell me that I don’t use proper sentences.”**

**“I use words like ‘thing’ and ‘it’, and people don’t know what I am talking about.”**

# Pragmatic Skills Composite

Identifies unusual use of language or interactions that may appear to be peculiar, or inappropriate, to others.

**“People laugh at things I say when I don’t mean to be funny.”**

**“I am told that I keep talking about things that others are not interested in.”**

**“I give people detailed information when a more general comment would be fine.”**

# Social Engagement Composite

Is sensitive to non-verbal communication and active engagement in social communication.

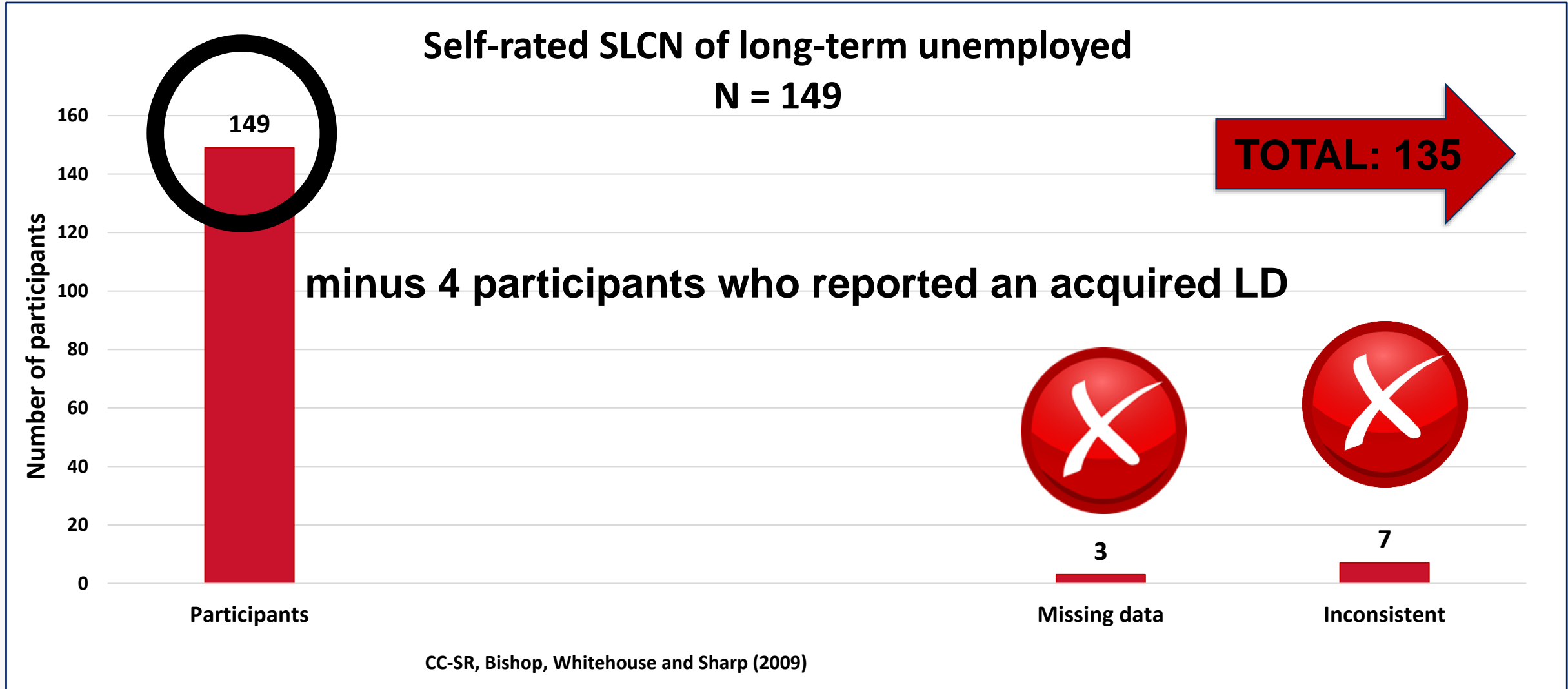
**“I feel anxious when I am with other people.”**

**“I am told that I stand too near to people when I talk to them.”**

**“I don’t look at people when I am talking to them.”**



# 149 long-term unemployed adults agreed to self-rate their communication skills



# Mean age of participants – 39.99 years (N = 135)

Age-bands	Female 18 – 62 years	Male 18 – 64 years	Total
18 – 25 years	12	21	33
26 years and over	52	50	102
Total	64	71	<b>N = 135</b>

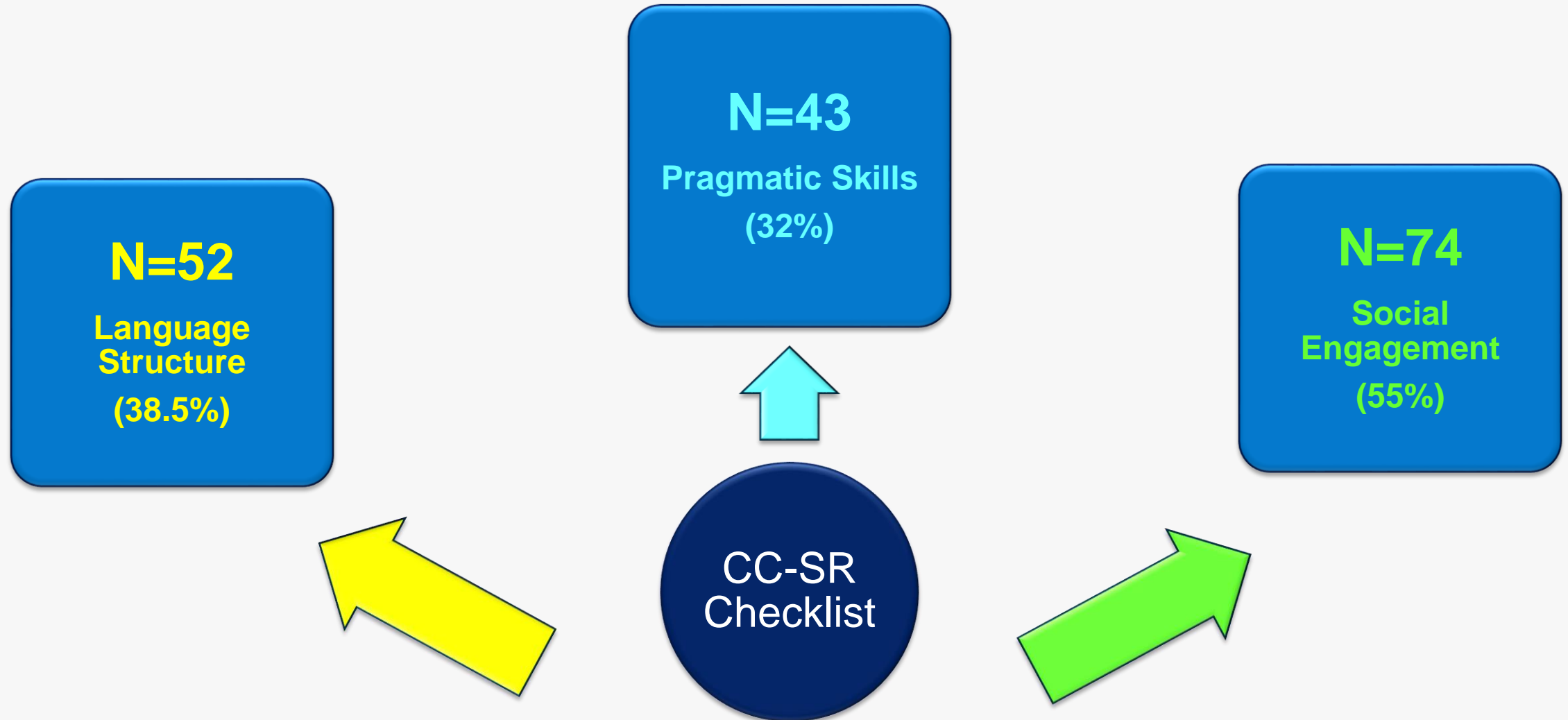
# Prevalence of SLCN: 55.6% – 63%





# Specific areas of difficulty reported

(Mean 10, SD 3)



The **nature** of the **SLCN** reported by participants are likely to **impact on key communication** skills identified by employers, and will be a barrier to a range of essential skills and activities in the workplace including:

- checking when **confused**
- working well in a **team**
- being a good **listener**
- adjusting** her/his **style of talking**
- being friendly and **approachable**





**What**

**Now?**

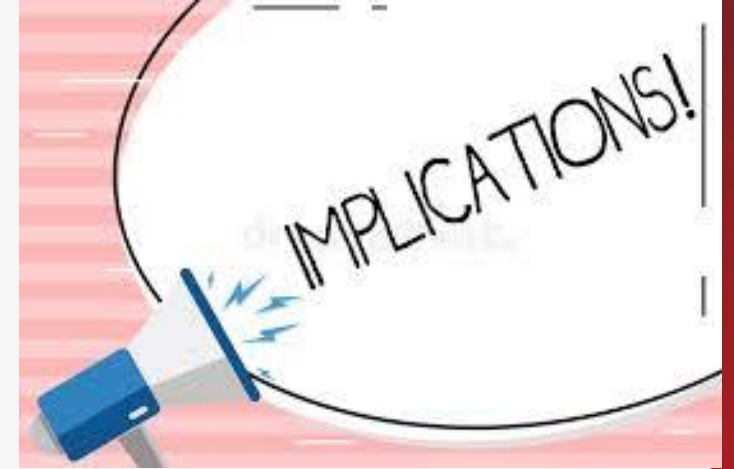


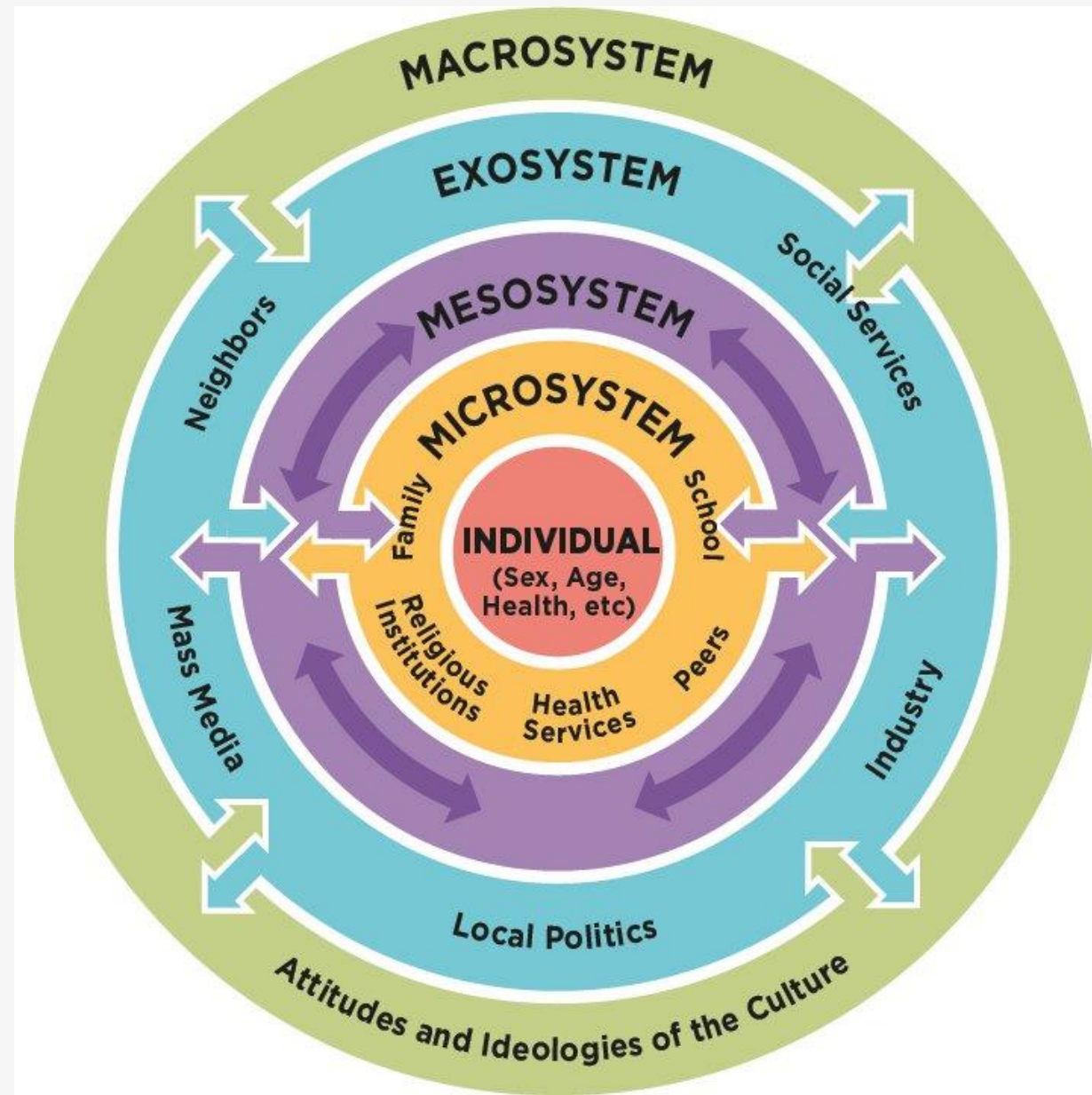


**If there indeed is a LOT more to Language Disorder than meets the eye, what are the implications for our practice?**

## Implications:

- ❑ The importance of **early Identification** and **intervention**
- ❑ The **continuation of support** and **specialist services** in adolescence and adulthood, throughout the lifespan
- ❑ **Expansion of areas** in assessment and management focusing on **broader language, communication and cognitive skills**, and **life skills**
- ❑ Incorporating a **holistic integrative** and **inclusive model of service delivery** drawing on Bronfenbrenner's **ecological systems theory**.





Bronfenbrenner's ecological systems theory, 1979



Wellbeing

The word "Wellbeing" is written in a colorful, sans-serif font. The letters are: 'W' (magenta), 'e' (green), 'l' (blue), 'l' (yellow), 'b' (grey), 'e' (blue), 'i' (red), 'n' (green), and 'g' (yellow). Four circular icons are connected to the letters by dashed lines: a dove with an olive branch (top left), scales of justice (top center), a person with arms raised (bottom left), and an open book (bottom right).


❑ **Therapy Outcome Measures (TOMS):** describes the relative abilities and difficulties of a client in the four domains of

- ❖ **impairment**
- ❖ **activity**
- ❖ **participation**
- ❖ **wellbeing**

Enderby P, and John A. (2015). *Therapy outcome measures for rehabilitation professionals* 3rd edition. Guilford: JR Press, <http://tinyurl.com/n7kzc2k>

# POAT - 2 (Profiling Outcomes Across Time) tool:

**Profiling Outcomes Across Time - 2**

 **CITY UNIVERSITY LONDON**  
EST 1969

Academic excellence for business and the professions

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Name: \_\_\_\_\_

DOB: \_\_\_\_\_

Setting: \_\_\_\_\_

Intervention: \_\_\_\_\_

Completed by: \_\_\_\_\_

Date: \_\_\_\_\_

Term: Autumn   
Spring   
Summer

**Notes:**

(Sohail and Joffe, 2016)



The **POAT – 2** consists of a series of nine rating scales including:

- Pre-verbal communication
- Talking and listening
- Speech
- Fluency
- Voice
- Social skills**
- Emotional well-being**
- Behaviour**
- Eating and drinking.



# TALKING AND LISTENING

	Never	Rarely	Sometimes	Frequently	Always	N/O
Listens & pays attention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Understands one or two words or short sentences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Understands long sentences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talks using one or two words or with short sentences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talks using long sentences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uses lots of different words	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Understands words with different or hidden meanings, for e.g. figurative language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Struggles to find the right word *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talks appropriately with other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shows frustration when not understood	YES <input type="checkbox"/>	NO <input type="checkbox"/>	NOT OBSERVED <input type="checkbox"/>			

\* = please note change in scoring: never = 5; rarely = 4; sometimes = 3; frequently = 2; always = 1

(Sohail and Joffe, 2016)

# EMOTIONAL WELL-BEING

	Never	Rarely	Sometimes	Frequently	Always	N/O
Shows feelings appropriately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shows good self esteem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shows appropriate levels of confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participates/engages appropriately in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Joins in & participates appropriately in the playground	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participates in extra-curricular activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shows an appropriate level of interest in a hobby/hobbies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shows an awareness of what is happening around them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is happy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is aware & responsive to people's feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bullies others	YES <input type="checkbox"/>		NO <input type="checkbox"/>		NOT OBSERVED <input type="checkbox"/>	
Is being bullied	YES <input type="checkbox"/>		NO <input type="checkbox"/>		NOT OBSERVED <input type="checkbox"/>	



**EXPANDING  
ROLES OF SLT**



## Changes in our role as an SLT...

- ❑ Expansion of our **clinical areas** and **client groups** to meet the **ever-changing needs** of our communities, for example, working with:
  - youth justice,
  - adults with DLD,
  - children and young people in care
  - children in palliative care
  - minority groups, and,
  - other vulnerable populations



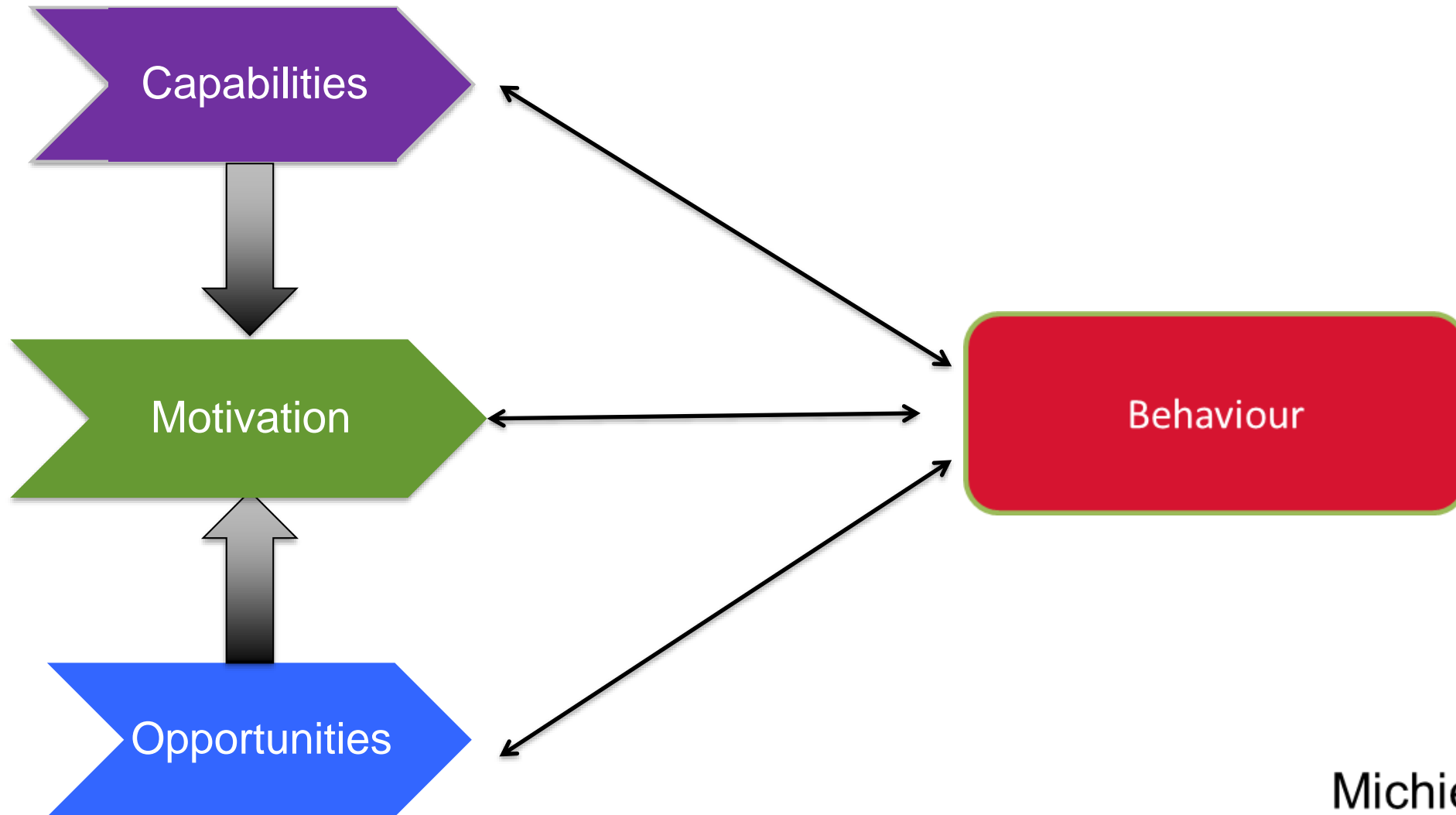
## Changes in our role as an SLT...

- ❑ Expansion of our clinical focus to include **implementation science** and **behaviour change**



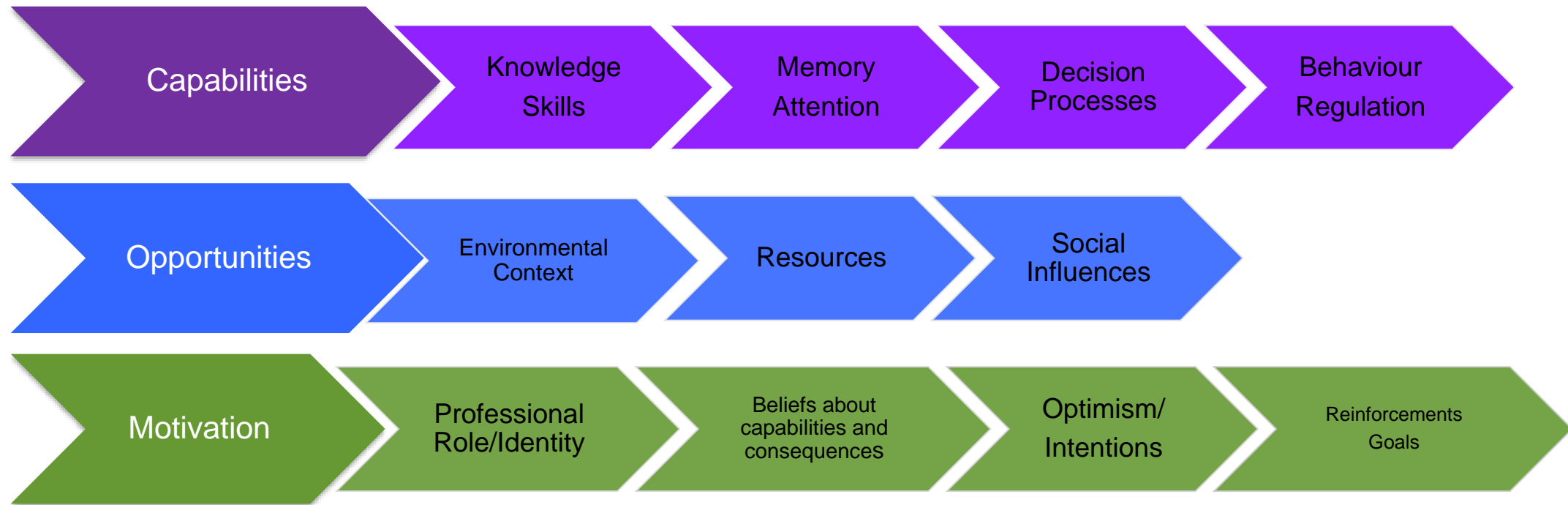


# COM-B Model of Behaviour Change



Michie et al (2011)

# Mapping COM-B with Theoretical Domains Framework (TDF) domains





advocacy  
rights  
views  
people  
express  
concerns  
information  
choices  
services  
voice  
particularly  
society  
vulnerable  
empower  
promote  
access  
understand  
person  
seeks  
defend  
enables  
variations  
genuinely  
wishes  
aims  
many  
otherwise  
speaking  
person







TECHNOLOGY



## E-PLAYS: The 'Maze Game' (Murphy et al., 2019)

A collaborative problem-solving e-task to improve **social communication skills and collaborative working** in children with social communication impairments.

Pilot research showed children with language disorder offered more explanation, gave explicit directions and guidance and addressed questions clearly to their work partners (peers) after playing the game.

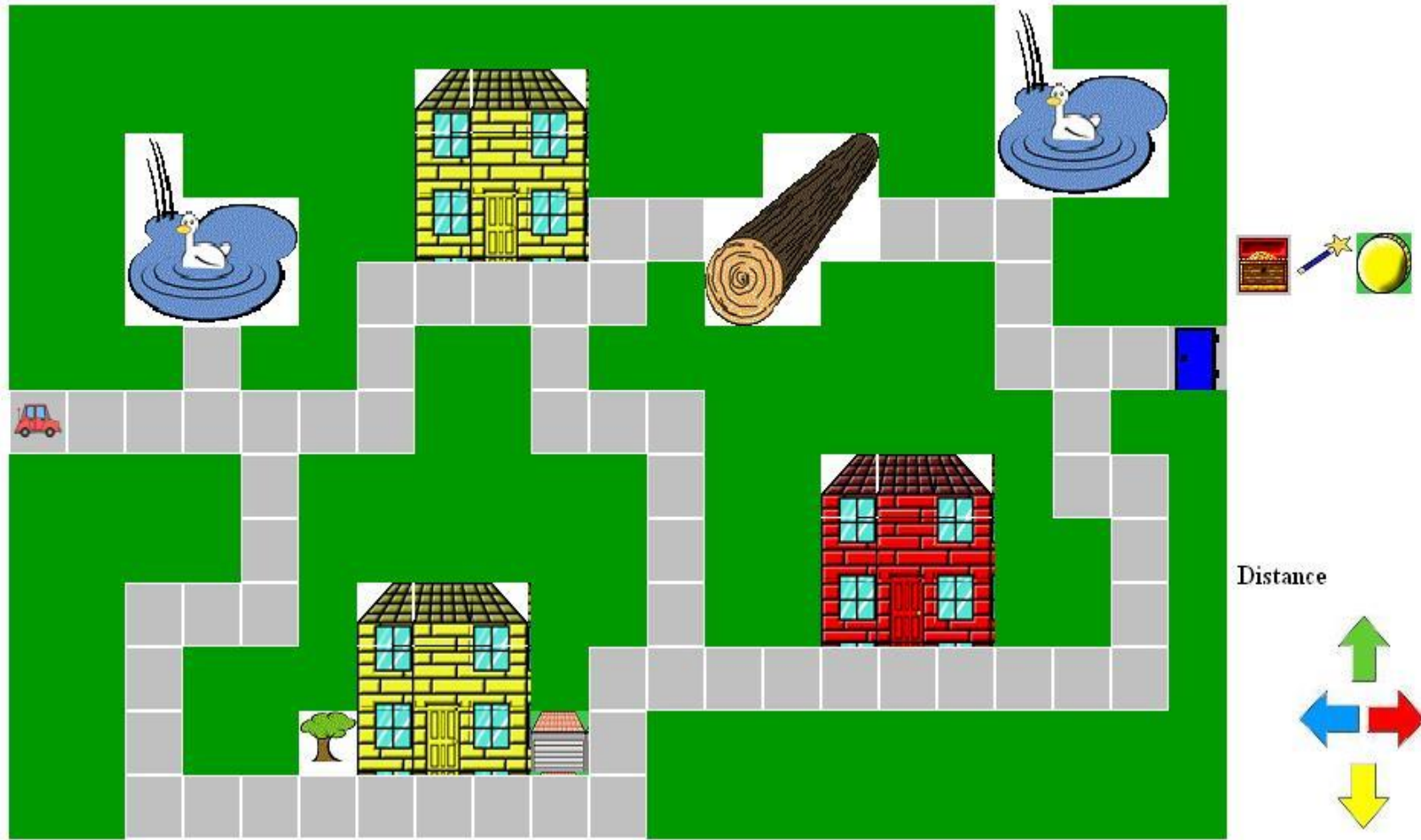
This task uses two computer laptops. Children work in pairs with each child sitting at one screen, with the laptops facing each other. In this way, children can see their own screen, but not that of their work partner.





Children working as a pair on computerised 'Maze Game'.

>>>>>>>>



Driver's view: Obstacle (snake) is unseen; reward (treasure chest) is also unseen.





Navigator's view: Obstacle (snake) is visible; reward (treasure chest) is also visible.



An intervention for people with aphasia delivered in a novel **virtual reality platform called EVA Park**. (led by Jane Marshall and colleagues in language and communication science and Computer Interaction Design at City University of London)



# EVA Park

- An enclosed island built with Open Sim
- Contains distinct regions, e.g.:
  - Houses
  - A Cafe
  - A Tropical Bar
  - A Versatile Counter (e.g. for booking a holiday)
  - A Health Centre
  - A Hair Dressers
  - A Disco
- Election narrative

















**COLD DRINKS**  
16oz only

**Frosted Latte**  
vanilla, mocha, peanutbutter mocha, green tea  
decaf vanilla, decaf mocha

**Non-Coffee**  
vanilla bean, strawberry cream, orange creamickle

**Fruit Tea Blast**  
strawberry, wildberry, mango, peach

there is an assortment of teas, juices and  
waters in the beverage cooler  
- and we can ice most hot drinks -

UNATTENDED  
CHILDREN  
WILL BE GIVEN  
ESPRESSO  
AND A FREE  
BITTER





Health  
Centre

**HOT DRINKS**  
Hot Coffee, Latte, Cappuccino,  
Mocha, Americano, Macchiato,  
Tea, Hot Chocolate, Chai Latte

**COLD DRINKS**  
Iced Coffee, Iced Latte,  
Iced Mocha, Iced Cappuccino,  
Iced Tea, Iced Lemonade,  
Fruit Tea Blast

UNATTENDED  
CHILDREN  
WILL BE GIVEN  
ESPRESSO  
AND A FREE  
BITTEN

## Changes in our role as an SLT...

- ❑ Working with and through **others** as appropriate, including teachers, parents, other family members, peers, and wider community
- ❑ Working across different **contexts**





# Changes in our role as an SLT...

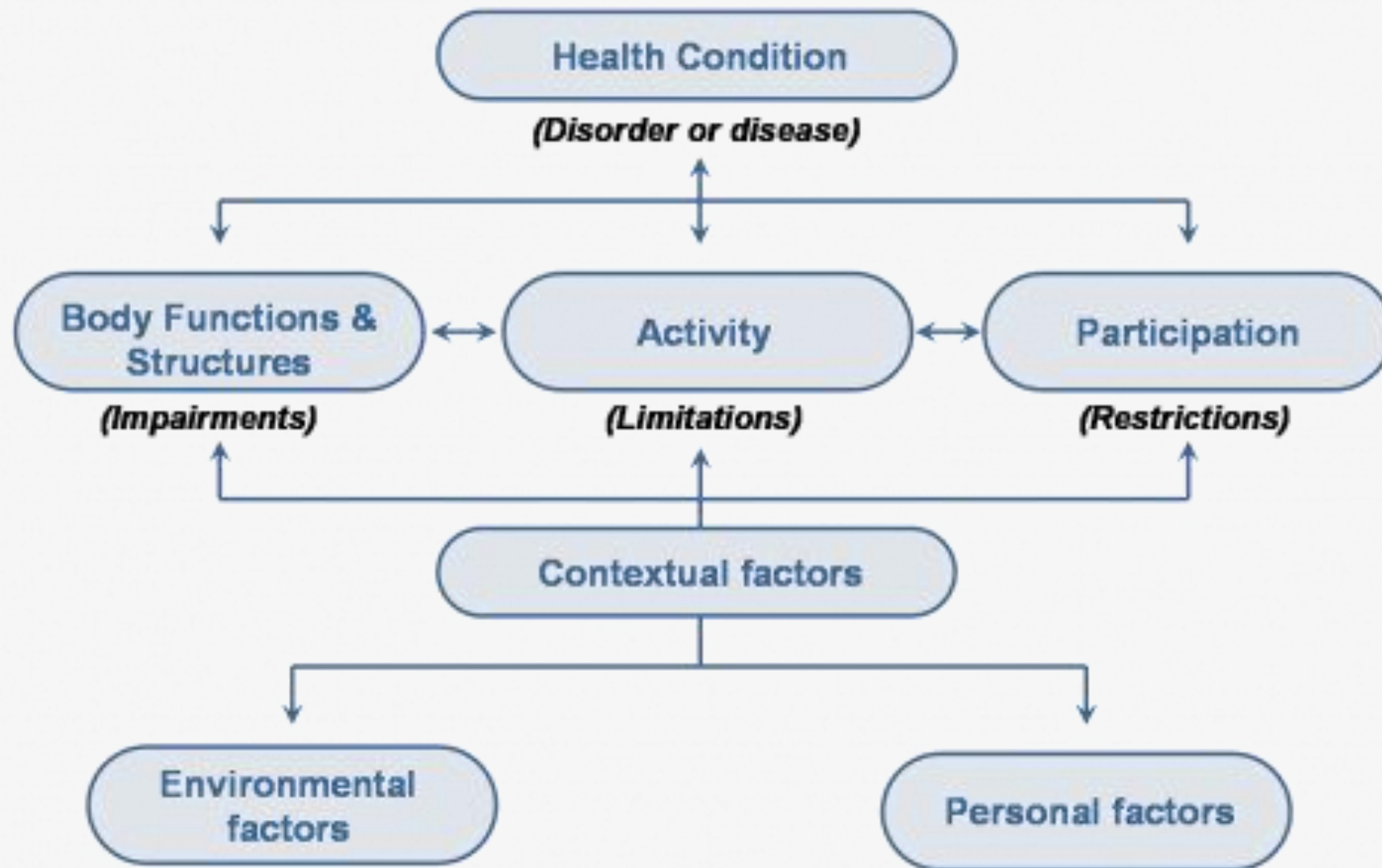


- ❑ Focus of our work has shifted, expanded and grown more **holistic**, including a focus on:
  - Quality of Life
  - Wellbeing
  - Friendships
  - Resilience
  - Employment

# Socio-Ecological Model



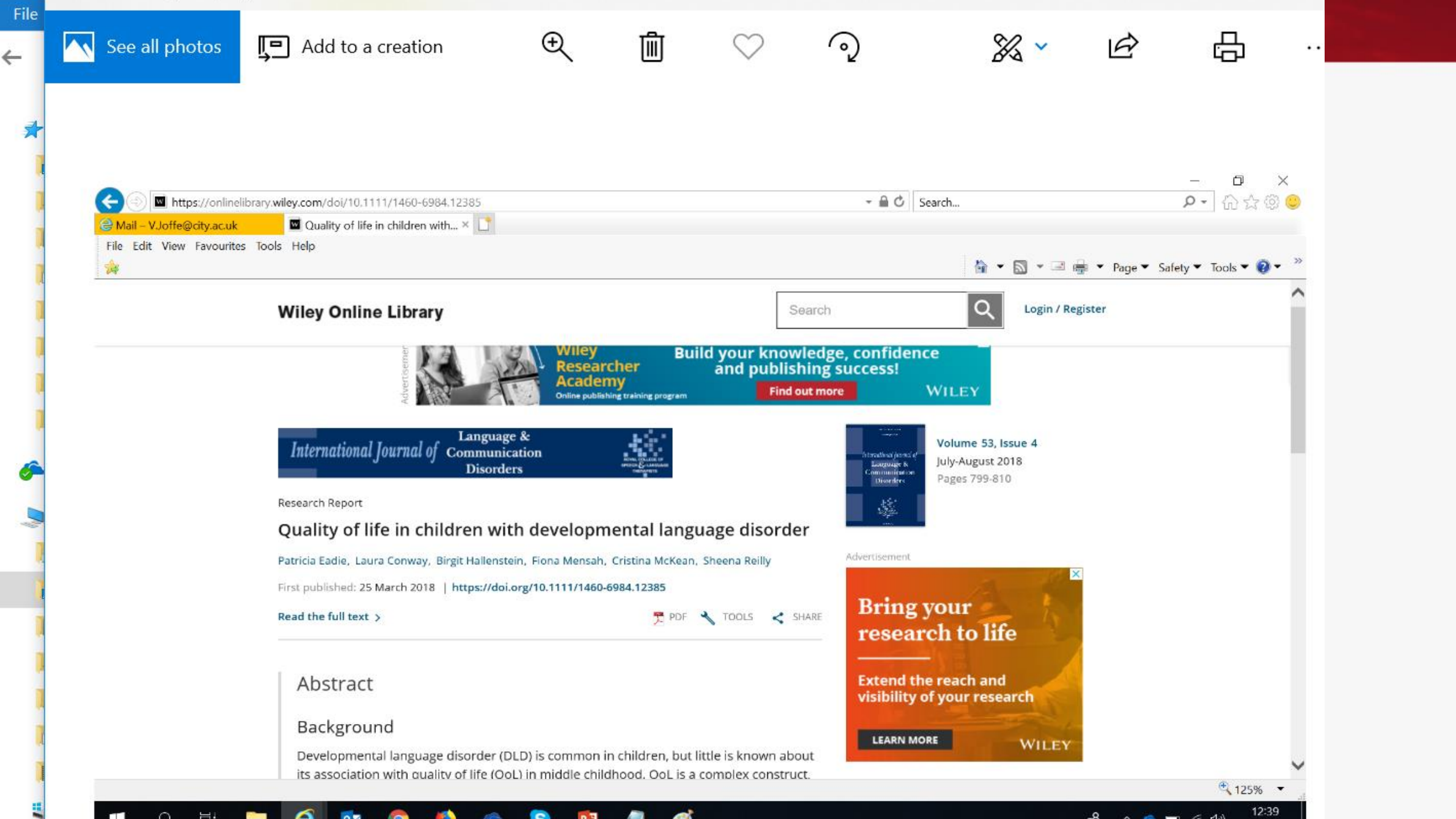
(From Bronfenbrenner, 1977)





Wellbeing

The word "Wellbeing" is written in a colorful, sans-serif font. The letters are: 'W' (magenta), 'e' (green), 'l' (blue), 'l' (yellow), 'b' (grey), 'e' (blue), 'i' (red), 'n' (green), and 'g' (yellow). Four circular icons are connected to the letters by dashed lines: a dove with an olive branch (top left), scales of justice (top center), a person with arms raised (bottom left), and an open book (bottom right).



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*International Journal of* **Language & Communication Disorders**




Volume 53, Issue 4  
July-August 2018  
Pages 799-810

Research Report

## Quality of life in children with developmental language disorder

Patricia Eadie, Laura Conway, Birgit Hallenstein, Fiona Mensah, Cristina McKean, Sheena Reilly

First published: 25 March 2018 | <https://doi.org/10.1111/1460-6984.12385>

[Read the full text >](#)

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### Abstract

### Background

Developmental language disorder (DLD) is common in children, but little is known about its association with quality of life (OoL) in middle childhood. OoL is a complex construct.

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## Well-Being and Resilience in Children with Speech and Language Disorders

Lyons, Rena; Roulstone, Sue

Journal of Speech, Language, and Hearing Research, v61 n2 p324-344 Feb 2018

**Purpose:** Children with speech and language disorders are at risk in relation to psychological and social well-being. The study was to understand the experiences of these children from their own perspectives focusing on risks to their well-being and protective indicators that may promote resilience. **Method:** Eleven 9- to 12-year-old children (4 boys and 7 girls) were recruited using purposeful sampling. One participant presented with a speech sound disorder, 1 presented with both a speech and language disorder, and 9 with language disorders. All were receiving additional educational supports. Narrative inquiry, a qualitative method, was employed. Data were generated in home and school settings using multiple semi-structured interviews with each child over a 6-month period. A total of 59 interviews were conducted. The data were analyzed to identify themes in relation to potential risk factors to well-being and protective strategies. **Results:** Potential risk factors in relation to well-being were communication impairment and disability, difficulties with relationships, and concern about academic achievement. Potential protective strategies







**SEEK HELP FROM ALL CORNERS**



**Make Connections**





WHEN YOU CHANGE THE WAY  
YOU LOOK AT THINGS  
THE THINGS YOU LOOK AT  
— CHANGE —









“The best  
way to  
predict  
your future  
is **TO CREATE**  
it.”

Abraham Lincoln

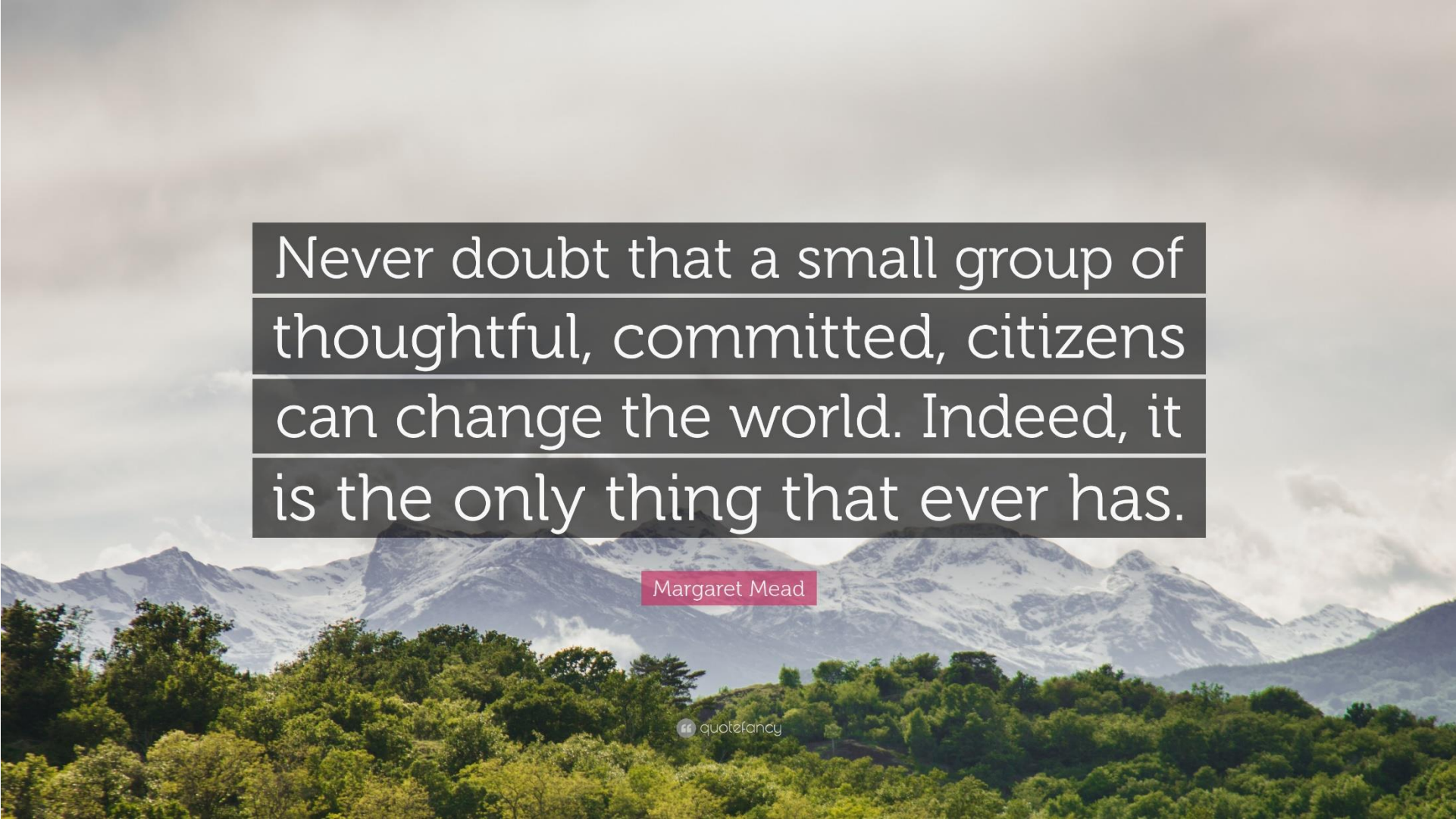
22 Nov 2012 11:24 am



**What will this  
look like in your  
practice?**







Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has.

Margaret Mead

quote fancy



*Thank for att du lyssnar*

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